



Calhoun: The NPS Institutional Archive
DSpace Repository

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

2011-12

Smart practices in building interorganizational
collaborative capacity to strengthen the
Florida Comprehensive Disaster Management enterprise

Hall, Richard D.

Monterey, California. Naval Postgraduate School

<http://hdl.handle.net/10945/10616>

Downloaded from NPS Archive: Calhoun



Calhoun is a project of the Dudley Knox Library at NPS, furthering the precepts and goals of open government and government transparency. All information contained herein has been approved for release by the NPS Public Affairs Officer.

Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

<http://www.nps.edu/library>



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**SMART PRACTICES IN BUILDING
INTERORGANIZATIONAL COLLABORATIVE CAPACITY
TO STRENGTHEN THE FLORIDA COMPREHENSIVE
DISASTER MANAGEMENT ENTERPRISE**

by

Richard D. Hall

December 2011

Thesis Co-Advisors:

Robert Josefek

Gail Fann Thomas

Approved for public release; distribution is unlimited

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 2011	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE Smart Practices In Building Interorganizational Collaborative Capacity to Strengthen the Florida Comprehensive Disaster Management Enterprise			5. FUNDING NUMBERS	
6. AUTHOR(S) Richard D. Hall				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. government. IRB Protocol number ____N/A____.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited			12b. DISTRIBUTION CODE A	
13. ABSTRACT (maximum 200 words) This research demonstrates how the building of Interorganizational Collaborative Capacity served as an enabler for effective change efforts in Florida and constructs a narrative describing smart practices that may be leveraged by other professionals to enhance their own interorganizational collaborative capacity and efficiency efforts. Florida is viewed by many professionals as one of the best-prepared states in the field of emergency management. It built a credible reputation over the past 20 years through increasingly effective responses to catastrophic hurricanes, floods, tornados, wildfires, tropical storms and environmental threats. In particular, the Florida State Emergency Response Team evolved during this time as a result of many change efforts following the initial response to Hurricane Andrew in 1992, an event viewed by many as the initial starting point for the creation of the modern Florida emergency management era. This research examines Florida's Comprehensive Disaster Management evolution from 1992 to 2004 using after-action reports for major emergency events utilizing Hocevar, Thomas and Jansen's model of Inter-organizational Collaborative Capacity and focuses on the factors that served as catalysts for increased interagency cooperation and efficiency.				
14. SUBJECT TERMS Florida, Interorganizational Collaborative Capacity, ICC, Disaster Management, Smart Practices, Florida's State Emergency Response Team (F-SERT), Florida's Comprehensive Disaster Management (CDM) Enterprise			15. NUMBER OF PAGES 133	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution is unlimited

**SMART PRACTICES IN BUILDING INTERORGANIZATIONAL
COLLABORATIVE CAPACITY TO STRENGTHEN THE FLORIDA
COMPREHENSIVE DISASTER MANAGEMENT ENTERPRISE**

Richard D. Hall
Training Officer, Major, Florida National Guard
B.A., NOVA University, 1994
M.A., Webster University, 2007, 2008

Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
(HOMELAND SECURITY AND DEFENSE)**

from the

**NAVAL POSTGRADUATE SCHOOL
December 2011**

Author: Richard D. Hall

Approved by: Robert Josefek
Thesis Advisor

Gail Fann Thomas
Co-Advisor

Daniel Moran, PhD
Chair, Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

This research demonstrates how the building of Interorganizational Collaborative Capacity served as an enabler for effective change efforts in Florida and constructs a narrative describing smart practices that may be leveraged by other professionals to enhance their own interorganizational collaborative capacity and efficiency efforts. Florida is viewed by many professionals as one of the best-prepared states in the field of emergency management. It built a credible reputation over the past 20 years through increasingly effective responses to catastrophic hurricanes, floods, tornados, wildfires, tropical storms and environmental threats. In particular, the Florida State Emergency Response Team evolved during this time as a result of many change efforts following the initial response to Hurricane Andrew in 1992, an event viewed by many as the initial starting point for the creation of the modern Florida emergency management era. This research examines Florida's Comprehensive Disaster Management evolution from 1992 to 2004 using after-action reports for major emergency events utilizing Hocevar, Thomas and Jansen's model of Inter-organizational Collaborative Capacity and focuses on the factors that served as catalysts for increased interagency cooperation and efficiency.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	PROBLEM STATEMENT	1
B.	PROBLEM STATEMENT—BACKGROUND.....	1
C.	RESEARCH QUESTIONS	3
1.	Primary Question.....	3
2.	Secondary Questions.....	3
D.	HYPOTHESES OR TENTATIVE SOLUTIONS	4
E.	SIGNIFICANCE OF THE RESEARCH.....	6
II.	BACKGROUND OF THE STATE OF FLORIDA COMPREHENSIVE DISASTER MANAGEMENT ENTERPRISE.....	7
III.	LITERATURE REVIEW	11
A.	KEY ASPECTS OF ICC	12
B.	ICC MODEL OF SUCCESS FACTORS AND BARRIERS	14
C.	LEADERSHIP’S ROLE IN BUILDING ICC.....	17
D.	ICC FRICTIONS AND CREATIVE TENSIONS	19
E.	ICC AND ORGANIZATIONAL DEVELOPMENT	27
F.	CONCLUSION	32
IV.	METHODS	35
A.	DATA COLLECTION	35
B.	METHOD FRAMEWORK.....	35
V.	DISCUSSION AND ANALYSIS	37
A.	HURRICANE ANDREW 1992.....	37
1.	Background	37
2.	Purpose Domain	40
a.	<i>Success Factors</i>	<i>40</i>
b.	<i>Willingness to Address Other Agencies Interests or Cross- Agency Goals Versus</i>	<i>41</i>
c.	<i>Barrier Factors.....</i>	<i>41</i>
3.	Structure Domain.....	43
a.	<i>Success Factors</i>	<i>43</i>
b.	<i>Barrier Factors.....</i>	<i>44</i>
4.	Lateral Mechanisms Domain	45
a.	<i>Success Factors</i>	<i>45</i>
b.	<i>Barrier Factors.....</i>	<i>46</i>
5.	Incentives Domain.....	46
a.	<i>Success Factors</i>	<i>46</i>
b.	<i>Barrier Factors.....</i>	<i>47</i>
6.	People Practices Domain	48
a.	<i>Success Factors</i>	<i>48</i>
b.	<i>Barrier Factors.....</i>	<i>48</i>

7.	Other Factors	50
a.	Leadership	50
b.	Collaborative Learning	50
8.	Conclusion	50
B.	WILDFIRES 1998.....	51
1.	Background	51
2.	Purpose Domain	53
a.	Success Factors	53
b.	Barrier Factors.....	55
3.	Structure Domain.....	56
a.	Success Factors	56
b.	Barrier Factors.....	57
4.	Lateral Mechanisms Domain	57
a.	Success Factors	57
b.	Barrier Factors.....	59
5.	Incentives Domain.....	59
a.	Success Factors	59
b.	Barrier Factors.....	60
6.	People Practices Domain	60
a.	Success Factors	60
b.	Barrier Factors.....	60
7.	Other Factors	62
8.	Conclusion	63
C.	SUMMER OF STORMS.....	63
1.	Background	63
2.	Purpose Domain	65
a.	Success Factors	65
b.	Barrier Factors.....	66
3.	Structure Domain.....	67
a.	Success Factors	67
b.	Barrier Factors.....	68
4.	Lateral Mechanisms Domain	69
a.	Success Factors	69
b.	Barrier Factors.....	70
5.	Incentives Domain.....	70
a.	Success Factors	70
b.	Barrier Factors.....	70
6.	People Practices Domain	71
a.	Success Factors	71
b.	Barrier Factors.....	71
7.	Other Factors	73
8.	Conclusion	73
VI.	FINDINGS AND RECOMMENDATIONS	75
A.	FINDINGS INTRODUCTION	75
B.	INSIGHTS FROM THE LITERATURE REVIEW	75

1.	Purpose.....	75
2.	Structure	77
3.	Lateral Mechanisms.....	77
4.	Incentives	78
5.	People Practices.....	79
C.	NOTED PATTERNS OF ICC IN THE FLORIDA CDM ENTERPRISE	80
1.	ICC Success Factors Increased over the 12-Year Period.....	81
2.	ICC Barrier Factors Decreased over the 12-Year Period.....	82
3.	Florida Leaders Capitalized on Lessons Learned From Each Event.....	83
4.	ICC Success and Barrier Factors Are Often Both Present During Different Stages of Events.....	84
5.	There is a Correlation Between Perceived Success of the Florida CDM Enterprise During the 12-Year Period with the ICC Model of Success and Barrier Factors.....	84
6.	Participants in Florida CDM Efforts During the 12 Years of Analysis May Not Have Been Cognizant of the Importance of the Building of ICC as a Success Enabler for Change Efforts	85
7.	Perceived Problems Later Became Success Enablers.....	85
8.	Florida Adopted a Whole-of-Government Approach as a Means to Address A Complex Problem.....	85
9.	Disasters and Emergencies Take Many Forms That Require Robust and Flexible Response Capabilities.....	86
10.	Strategic Leadership Influenced ICC Domains	87
D.	DISCUSSION AND EXAMPLES OF NOTED PATTERNS	87
1.	ICC Success Factors Increased over the 12-Year Period.....	87
2.	ICC Barrier Factors Decreased over the 12-Year Period.....	89
3.	Florida Leaders Capitalized on Lessons Learned From Each Event.....	90
4.	ICC Success and Barrier Factors Are Often Both Present During Different Stages of Events.....	91
5.	There is a Correlation Between Perceived Success of the Florida CDM Enterprise During the 12-Year Period with the ICC Model of Success and Barrier Factors.....	92
6.	Participants in Florida CDM Efforts During the 12 Years of Analysis May Not Have Been Cognizant of the Importance of the Building of ICC as a Success Enabler for Change Efforts	93
8.	Florida Adopted a Whole of Government Approach as a Means to Address a Complex Problem.....	94
9.	Disasters and Emergencies Take Many Forms That Require Robust and Flexible Response Capabilities.....	95
10.	Strategic Leadership Influenced ICC Domains	96
E.	RECOMMENDATIONS.....	97

1.	Conceptualize the Findings into a Briefing Format for Interested Stakeholders and Researchers.....	98
2.	Examine Other Events in the Florida CDM Enterprise History for Further Development of How the Building of ICC Influences the Success of the Interagency Environment	98
3.	Examine New Emergency Events that Happen in the Future, Using ICC Domains as a Framework.....	98
4.	Utilize the Findings of this Research in the Structuring of Future Combined Training Events	98
5.	Continue to Expand the Practice of Conducting After-Action Reviews, and the Capturing of Lessons Learned, Using the Concept of the Building of ICC as a Framework of Analysis.....	99
VII.	CONCLUSIONS	101
A.	THE END OF THE STORY OR THE BEGINNING?	101
B.	FUTURE RESEARCH.....	103
	APPENDIX AUTHORS BIOGRAPHY AND PERSONAL OBSERVATIONS	105
	LIST OF REFERENCES	107
	INITIAL DISTRIBUTION LIST	113

LIST OF FIGURES

Figure 1.	Interorganizational Collaborative Capacity: Domains & Factors.....	16
Figure 2.	Organizations In A Common Problem Space.....	24
Figure 3.	Theory of Constraints, Organizational Learning, Force Field Analysis and ICC Model Shared Characteristics.....	34
Figure 4.	Increase of Florida CDM Enterprise ICC Success Factors 1992–2004.....	82
Figure 5.	Decrease Of Florida CDM Enterprise ICC Barrier Factors 1992–2004.....	83
Figure 6.	The Building Of Icc In The Florida Cdm Enterprise.....	97
Figure 7.	Collaboration Maturity Model	102

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

Table 1.	ICC Success Factors Correlation With Senge’s Five Core Disciples For Organizational Learning	25
Table 2.	ICC Success Factors Correlation With Senge’s Five Core Disciples For Organizational Learning	26
Table 3.	List of Collaborative Success Factors Noted In Hurricane Andrew 1992 Report.....	49
Table 4.	List Of Collaborative Barrier Factors Noted In Hurricane Andrew 1992 Report.....	49
Table 5.	List of Collaborative Success Factors Noted in Wildfires 1998 Report	61
Table 6.	List of Collaborative Barrier Factors Noted in Wildfires 1998 Report	61
Table 7.	List of Collaborative Success Factors Noted in Summer of Storms 2004 Report.....	71
Table 8.	List of Collaborative Barrier Factors Noted in Summer of Storms 2004 Report.....	72

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

AAR	After-Action Review
CAS	Complex Adaptive Systems
CDM	Comprehensive Disaster Management
CEMP	Comprehensive Emergency Management Plan
DCA	Department of Community Affairs
DEM	Division of Emergency Management
DHS	Department of Homeland Security
DWSC	District Wildfires Services Council
DSCA	Defense Support to Civil Authorities
EMAC	Emergency Management Assistance Compact
FDLE	Florida Department of Law Enforcement
FFA	Force Field Analysis
FLNG	Florida National Guard
FM	Field Manual
F - SERT	Florida - State Emergency Response Team
HD	Homeland Defense
ICC	Inter-organizational Collaborative Capacity
IMS	Incident Management System
JOPLAN	Joint Operations Plan
JULLS	Joint Universal Lessons Learned System
MAC	Multi-agency Coordinating Group
NORTHCOM	Northern Command
RIAT	Rapid Impact Assessment Team

SEOC	State Emergency Operations Center
SERT	State Emergency Response Team
TOC	Theory of Constraints
WMD	Weapons of Mass Destruction

ACKNOWLEDGMENTS

This research has been a collaborative effort and I extend sincere appreciation to the following for their support. Adequately acknowledging my gratitude is a challenge because I am indebted to so many people for continuing to help me along my journey of discovery.

My family has been a source of continuing encouragement for me. They sustain me in accomplishing the many opportunities and challenges that encompass our world. More importantly, they provide me with a safe haven and make any accomplishments worth the effort. Special thanks to my wife and my daughters for their love and patience. Special thanks also to my parents for their lifelong inspiration and support.

My thesis advisory team has been tremendous in their sharing of vast knowledge and efforts to help me navigate the research process. I have benefited tremendously from their mentoring and collaboration. They have been incredible in providing much needed focusing of my research effort and providing structure. Their patience and sage wisdom were catalysts for completing this project.

Florida's State Emergency Response Team has responded to a myriad of challenges to the state during the time that I have served in the Florida National Guard. My experiences with a wide range of dedicated state personnel during my service leave me amazed at all that has been accomplished and confident for the future. Their selfless service to our great state are worthy of recognition.

I am proud to have served in the Florida National Guard for 29 years. It has been an extended family for me and is comprised of truly exceptional individuals who rise to any challenge. Many of these patriots have been sent on multiple overseas deployments during the past 10 years while their families faced adversity at home due to hurricanes, wildfires and tornados. Some have made the ultimate sacrifice since 9-11. Many returned from Afghanistan in 2004 and then spent several weeks on state active

duty during the summer of storms. I am truly honored to serve with such men and women. The National Guard provides America with a versatile and agile force capable of responding to a wide range of threats.

Thanks to the Naval Postgraduate School Center for Homeland Defense and Security for this remarkable educational opportunity. The staff and instructors have significantly changed the way that I view the homeland security environment and provided insight into many different perspectives. Learning is often a product of challenging the manner in which we view our world and they have been successful in challenging my views and frames of reference.

My classmates have been a huge contributor in my learning process and I am truly appreciative of how much they contributed to my understanding of homeland security. I look forward to hearing of their many future successes and contributions to the homeland security enterprise. I appreciate their taking me along on our remarkable journey.

Finally, thanks to the residents of Florida for their fortitude. Florida has experienced more than its share of emergencies during my lifetime and yet these remarkable people continue to demonstrate extraordinary spirit and resilience. I hope that this effort contributes to their security.

I. INTRODUCTION

A. PROBLEM STATEMENT

This research examines the need for the building and/or strengthening of collaborative capacity within the homeland security enterprise, with specific focus on the state of Florida's Comprehensive Disaster Management (CDM) Enterprise. While acknowledging that any homeland security effort could benefit from assessing its collaborative capacity, this study's specific focus is Florida's State Emergency Response Team (F-SERT). Cooperative collaboration within Homeland Security is about organizational effectiveness in protecting American national interests. Homeland Security Presidential Directive 8¹ states that *strengthening information sharing and collaboration capabilities* is a national priority. This directive emphasizes the need for this research effort into organizational factors that might enable information sharing and collaborative efforts.

B. PROBLEM STATEMENT—BACKGROUND

American homeland security is still a relatively new discipline. This is especially true at the state and local levels, where time is required to formulate guidance in line with homeland security federal directives and programs. The task of protecting America from invasion and subversion has been a daunting endeavor for the nation since its inception. The twenty-first century has produced new security challenges and threats as a result of extreme weather patterns, emerging technological advances, an evolving organizational framework designed to counter threats to the national interest, economic instability and violent extremism. Homeland security success is paramount for future generations—it is a national and state security imperative. The homeland security enterprise is a consortium of organizations that requires maintenance and sometimes organizational development intervention to flourish and reach a state of excellence. Similar to many experiences in life, homeland security may be viewed as a journey and not a destination.

¹ United States Department of Homeland Security (DHS), *Presidential Directive 8: National Preparedness* (Washington, DC: United States Department of Homeland Security, 2003).

American homeland security has made great strides over the past 10 years but state and federal intra- and inter-agency efforts still experience organizational friction. Organizational friction may be defined by combining the definitions of organization and friction. Organization is defined as 1) a group of people identified by a shared interest or purpose, or 2) the coordinating of separate components into a unit or structure.² Friction is defined as a disagreement or conflict, stopping short of violence, between people, groups, or nations with differing objectives or views.³ Another shorter definition of friction is the clashing between two persons or parties of opposed views.⁴ Agencies that now comprise American homeland security, historically operated within their own organizational cultures and established unique organizational “brands.” With the establishment of U.S. Homeland Security, these same organizations have been directed to operate outside their historical spheres of influence, collaborate with one another, and increase information sharing with other agencies. The addition of new agencies to the homeland security enterprise—while enhancing capabilities—has increased the probability of greater organizational friction.

Organizational friction impedes the effectiveness of building collaborative capacity—a necessary and vital component of effective homeland security. Getha-Taylor (2008) notes that “the Homeland Security Act of 2002 mandated collaboration as the necessary mechanism for accomplishing the complex and critical mission of protecting the American people. The U.S. Department of Homeland Security (DHS) was created as part of this Act but collaboration success still seems elusive in many instances. Part of this problem may be attributed to a potential lack of collaborative capacity among DHS organizations as identified by such scholars as Goodman et al. (1998) and Bardach (1998,

² MSN Encarta Dictionary, *Organization*, 2010, http://encarta.msn.com/dictionary_1861684837_1861684837/prevpage.html (accessed November 3, 2010).

³ MSN Encarta Dictionary, *Friction*, 2010, <http://encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?lextype=3&search=friction> (accessed November 3, 2010).

⁴ Merriam-Webster Dictionary, *Friction*, 2010, <http://www.merriam-webster.com/dictionary/friction> (accessed November 3, 2010).

2001). These scholars describe the capacity to collaborate being built among such components as trust, communication, intellectual capital, creative opportunity, acceptance of leadership and learning.”⁵

The cost of organizational friction can be measured in financial terms, due to organizational inefficiencies, and in potential security failures leading to additional damage and loss of life. Also of concern is the decrease in the public's confidence in the government's ability to operate efficiently to provide acceptable levels of security. Inefficiency in government affects morale, which impacts adversely on the ability to complete the organization's mission, leading to more decline in efficiency and organizational creativity. Organizations and individuals may become protective of their turf and defensive in their activities, which may cause increased stove-piping of information.

C. RESEARCH QUESTIONS

1. Primary Question

What do lessons learned tell us about the development of collaborative capability for the Florida Comprehensive Disaster Management Enterprise?

2. Secondary Questions

- What success factors enable collaborative capacity?
- What organizational frictions (restraining factors) inhibit collaborative capability?
- What smart practices (enablers) contribute to effective collaborative capability?
- What methodologies, tools and training were used to build collaborative capacity within the Florida CDM enterprise?

⁵ Getha-Taylor, Heather, “Learning Indicators and Collaborative Capacity: Applying Action Learning Principles to the U.S. Department of Homeland Security,” *Public Administration Quarterly* 32, no. 2 (2008): 125–146, <http://search.proquest.com.libproxy.nps.edu/business/docview/226969112/13051E1667C4668ED1E/2?accountid=12702> (accessed July 2, 2011).

D. HYPOTHESES OR TENTATIVE SOLUTIONS

Interagency collaboration is an enabler for successful homeland security efforts within the United States. The United States Army Leadership Field Manual 6-22 discusses the importance of creating a common vision to create successful teams—“the key element of extending influence and building teams is the creation of a common vision among prospective team members.”⁶ This project seeks to enable the continuation of a collective state of Florida CDM vision by collecting and disseminating research from past efforts across the continuum of the past 20 years of Florida homeland security and emergency management efforts. Documenting smart practices facilitates a future emphasis on building collaborative capacity efforts and may also assist in the development of future Florida CDM values.

One of the major means for building collaborative capacity within the Florida SERT organization is through collaborative learning. Existing research in collaborative learning supports this premise statement. Bardach states that “learning has been identified as an important component of collaborative capacity.”⁷ Donoghue and Tuohy noted, in a 2006 study of disaster after-action reports and lessons learned, retrieved from a range of disasters such as Hurricane Katrina, the 9-11 attacks, the 1995 Oklahoma City bombing and Hurricane Andrew that “perhaps the key mechanism for testing, practicing, refining and inculcating new lessons-derived behavior is exercising. Almost every After-Action Review (AAR) discussed the critical role that training and exercising play in building capacity.”⁸ This project seeks to shape the strategic environment for further development of the Florida State Emergency Response Team (F-SERT) by linking its past, present and future endeavors.

The F-SERT is an intra-agency unit comprised of single agency resources to include human resources and equipment. Its success or failure depends on collaborative

⁶ United States Army, *Army Leadership: Competent, Confident and Agile*, 7-22, October 12, 2006, <http://mlde.whs.mil/download/documents/Readings/fm6-22.pdf> (accessed January 22, 2011).

⁷ Getha-Taylor, “Learning Indicators and Collaborative Capacity,” 125.

⁸ Donoghue, Amy K. & Tuohy, Robert V., “Lessons We Don’t Learn: A Study if the Lessons of Disasters, Why We Repeat Them, and How We Can Learn Them,” *Homeland Security Affairs* II, no. 2 (2006).

efforts between the various participating governmental and non-governmental agencies at the federal, state and local levels as well as with the Florida population that it is designed to support. The inherent risk of not collaborating includes the dynamic of stove-piping information related to successful efforts within individual agencies as the forces of competing organizational cultures lead to competition for available resources.

This project does not seek to rank individual agency efforts against other agencies' efforts; it is assumed that each effort contains its own unique challenges due to its distinctive circumstances and that each agency's overall mission contributes to collective Florida SERT success. A premise of this project is that a systems approach to examining interagency mission success will provide clues that complete the entire puzzle and strengthen the effort within the broader context of the Florida homeland security enterprise. It is further supposed that this narrative of what success looks like, within the state of Florida, will strengthen other state and federal agency efforts within the broader homeland security enterprise.

Training is essential for the homeland security enterprise to be successful. A premise of this project is that homeland security training should include organizational development training methodologies as part of the program. Since homeland security focuses on many asymmetrical threats, it is imperative that homeland security organizations be flexible and able to adapt to rapidly evolving circumstances. Identification of smart practices for collaborative capacity development in the field of Florida homeland security efforts may be further applied to the entire homeland security enterprise to assist in facilitating collaborative teamwork efforts.

This research hypothesizes that Lewin's Force Field Analysis (FFA) method (to identify driving forces and restraining forces for the building of collaborative capacity within the state of Florida CDM Enterprise) will serve to build tacit knowledge within the Florida SERT. FFA is an analytical tool designed by Lewin to develop a framework for looking at situations to identify driving factors moving towards a goal and restraining factors blocking movement toward a goal. This knowledge should enhance the F-SERT's leadership ability to strengthen shared values and vision for the Florida CDM Enterprise.

E. SIGNIFICANCE OF THE RESEARCH

This research attempts to add to the existing literature by expanding on how to effectively build collaborative capability, within an organization, with specific emphasis on comprehensive disaster management inter-agency organizations. In today's homeland security environment, the case may be made that most organizations need to build collaborative capacity in their CDM portfolio to be truly effective. Homeland Security Presidential Policy Directive 8: National Preparedness, released on March 30, 2011, states that the directive is aimed at strengthening the security and resilience of the United States through systematic preparation for the threats that pose the greatest risk to the security of the nation, including acts of terrorism, cyber-attacks, pandemics, and catastrophic natural disasters. Our national preparedness is the shared responsibility of all levels of government, the private and nonprofit sectors, and individual citizens. Everyone can contribute to safeguarding the Nation from harm. As such, while this directive is intended to galvanize action by the federal government, it is also aimed at facilitating an integrated, all-of-Nation, capabilities-based approach to preparedness.”⁹

Whether an organization is a statewide emergency management team, the federal homeland security enterprise or a local private company, homeland security and disaster response affects most organizations and networks of people at specific periods of their existence. Even a local community's security can be strengthened by building or enhancing collaborative capability.

⁹ DHS, *Homeland Security Presidential Policy Directive/ PPD 8: National Preparedness*, March 30, 2011, http://www.dhs.gov/xabout/laws/gc_1215444247124.shtm (accessed June 26, 2011).

II. BACKGROUND OF THE STATE OF FLORIDA COMPREHENSIVE DISASTER MANAGEMENT ENTERPRISE

The Florida Division of Emergency Management is the central hub of Florida's emergency management efforts. The division is headquartered in the state capital of Tallahassee under the Department of Community Affairs (DCA) and serves as the state's liaison with federal and local agencies for emergencies of all kinds. Florida Executive Order 80-29 dated April 14, 1980 directed state departments, agencies, offices and units of state and local government to develop and implement disaster preparedness plans in the event of natural and manmade disasters.¹⁰

Florida has established a consortium of governmental agencies, private organizations and non-governmental organizations under the umbrella of the Florida State Emergency Response Team (F-SERT). The F-SERT operates under the charter of the State of Florida Statute Title XVII Chapter 252—The Emergency Management Act. Chapter 252.35 of the Florida statutes mandates that the Florida Division of Emergency Management prepare a state comprehensive emergency management plan (CEMP), which shall be integrated into and coordinated with the emergency management plans and programs of the Federal Government. The plan shall be implemented by a continuous, integrated comprehensive emergency management program. The plan must contain provisions to ensure that the state is prepared for emergencies and minor, major and catastrophic disasters and that the division shall work closely with local governments and agencies and organizations with emergency management responsibilities in preparing and maintaining the plan. The state comprehensive emergency management plan shall be operations oriented.¹¹

¹⁰ Mittler, Elliot, *A Case Study of Florida's Emergency Management since Hurricane Andrew* (Grant CMS-9319422), Arlington, VA: National Science Foundation, 1997.

¹¹ Florida Legislature, *The 2010 Florida Statutes (including Special Section A)*, Title XVII Military Affairs and Related Matters, Chapter 252, Emergency Management, 2011, http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0252/Sections/0252.35.html (accessed April 30, 2011).

The Florida Department of Law Enforcement (FDLE) is also headquartered in Tallahassee and serves as the lead state agency for domestic security efforts. In October 2001, Florida developed the nation's first comprehensive counter-terrorist strategy¹² in response to the 9-11 terrorist attacks on the United States. This effort—similar to the efforts of the Florida State Emergency Response Team for emergency management—utilized a multi-agency approach that leveraged state and local governments along with key private sector partners to develop a multi-agency plan focused on Florida's goals of preparation, prevention, deterrence, preemption, protection, response and recovery from terrorist acts.

Florida's private citizens' participation and collaboration in such activities as preparedness and evacuations is highly encouraged by the F-SERT through public outreach efforts and sharing of hazards information. The many different stakeholders and participants in the fields of Florida's emergency management and domestic security are all part of an interconnected network or complex adaptive system. There has been limited discussion of identifying an overall comprehensive term to identify this networked collaborative effort, which has become sophisticated and highly adaptive as a result of so many events over the past 20 years. The term Florida Comprehensive Disaster Management Enterprise is introduced in this research project as a means of identifying and describing the collaborative systems network of this consortium of stakeholders and participants in all-hazards preparedness, response, recovery and mitigation efforts across the state. It is hoped that this descriptive term will stimulate further discussion and research to adequately describe this complex phenomenon. The term itself may be modified or built upon by subsequent researchers, leaders or change agents but the intent is to provide a term that adequately describes the interorganizational collaborative capacity (ICC) of so many networked and dedicated Florida organizations and personnel.

¹² Florida Domestic Security Oversight Counsel, *Florida Domestic Security Strategic Plan 2009–2011*, August 5, 2008, <http://www.fdle.state.fl.us/Content/getdoc/0aead9bc-20f4-4c4e-86fd-6bd15df62b38/FloridaDomesticSecurityStrategicPlan2009-2011.aspx> (accessed September 21, 2011).

After major events such as the Hurricane Andrew response in 1992, the Wildfires of 1998 and the Summer of Storms of 2004, Florida has conducted multi-agency review committees to capture lessons learned. Reports were produced by these various committees to serve as archives of consolidated lessons learned data for future research and study. These reports serve as the primary research data for this project and are discussed in further detail later in this research.

THIS PAGE INTENTIONALLY LEFT BLANK

III. LITERATURE REVIEW

Mark Bevin at the University of California at Berkley makes the case that the creation of the U.S. Department of Homeland Security is in itself a manifestation of an attempt to create collaborative capacity building or—as he often refers to it—“joined-up governance.”¹³ Bevin notes that, initially, the main language was that of interagency coordination, but it has shifted to denote the whole of government. He goes on to note that the 2004 Homeland Security Strategic Plan explicitly mentions “collaborating and coordinating across traditional boundaries, both horizontally (between agencies) and vertically (among different levels of government)” with the equally explicit aim of creating a “cohesive, capable and service-oriented organization whose cross-cutting functions will be optimized” so as to better protect the “nation against threats and effectively respond to disasters.”

This chapter examines the literature related to the building and strengthening of collaborative capacity. To begin, I discuss key aspects of interorganizational collaboration (ICC) including the importance of shared values, common ground, trust, and organizational culture. Then, I describe an ICC model of success factors and barriers. Next, I discuss concepts that are particularly relevant to the development of ICC over time. These concepts are the role of leadership, friction (hindrances), creative tensions, generative organizational learning, mental models and organizational development (theory of constraints, smart practices, and force-field analysis). I then conclude the literature review with a summary of the literature review and what conclusions may be drawn from the discussed literature.

The interactions of individuals, teams, and organizations can be linked for cause and effect. If enough individual interpersonal interaction is positive or negative, then it is likely that a correlation, either positive or negative, will be found within the larger organizational group intra-agency interactions. Conversely, a large degree of conflict

¹³ Bevin, M., Joined-Up Governance and the War on Terror, September 1, 2010, http://www.google.com/search?sourceid=navclient&ie=UTF-8&rlz=1T4SKPT_enUS409US417&q=bevin+AND+collaboration (accessed July 2, 2011).

within an organization may cause increased amounts of interpersonal conflict. In the context of building ICC—particularly the historical experience of emergency management efforts centered on extreme weather events—interpersonal, intra-agency and inter-agency conflict and friction exists. This is of significance when emergencies arise since time management becomes even more challenging under complex and time sensitive situations; notable examples in recent United States history are the 9-11 attacks and major storm landfalls such as Hurricane Katrina.

A. KEY ASPECTS OF ICC

Foster-Fishman et al.¹⁴ note in their qualitative analysis of 80 articles, chapters and practitioner guides that collaborative capacity is built through three primary areas: member capacity, relationship capacity and organizational capacity. They further divide these areas into the following key categories:

- Member Capacity:
 - core skills
 - attitudes
 - motivations
 - access
- Relationship Capacity:
 - good internal relationships
 - positive external relationships
- Organizational Capacity:
 - leaders with skills, relationships and vision to transform individual interests into a dynamic collective force
 - formalized procedure that clarify staff and member roles and provide clear guidelines for decision making
 - conflict resolution

¹⁴ Foster-Fishman, Pennie G., Berkowitz, Shelby A., Lounsbury, David W., Jacobson, Stephanie, Allen, Nichole A., “Building Collaborative Capacity in Community Coalitions: A Review and Integrative Framework,” *American Journal of Community Psychology* 29, no. 2 (2001): 241–261, http://www.qub.ac.uk/ep/research/cu2/data/bib_foster-fishman-et-al_building-collaborative.pdf (accessed November 5, 2011).

- a well developed internal communication system that promotes information sharing and problem discussion and resolution on a frequent basis
- human and financial resources
- a continuous learning organization to consistently seek and respond to feedback

Building and strengthening collaborative capacity in homeland security organizations may reduce organizational friction and help these organizations improve their effectiveness and efficiency. Factors related to increased collaborative capacity include shared values, enhanced trust, organizational culture, effective leadership and the building/sharing of knowledge. Each of these factors is discussed below.

Stephen Denning espouses that collaboration success is dependent on the establishment of shared values.¹⁵ He also notes that often the failure to collaborate is caused by management practices and reward incentives that are geared toward traditional work units and individual responsibility and accountability. Collaboration failure may be caused by lack of substance behind the stated goal of collaboration. Denning promotes the concept of use of stories to promote a team's catalyst toward shared narratives and values.

Eugene Bardach makes a case similar to Denning's proposition, but with the paradigm reversed: collaborative processes may actually create new values by "staking out common ground that had hitherto not been realized."¹⁶ Bardach's work is a commonly referenced source of information regarding building collaboration.

Continuing the examination of existing literature on collaborative capacity leads us to the importance of trust. Conflict management skills can enhance trust within relationships and have positive influences on building organizational collaborative

¹⁵ Denning, Stephen, *The Leaders Guide to Storytelling* (San Francisco, CA: Jossey-Bass, 2011), 158.

¹⁶ Bardach, Eugene. *Getting Agencies to Work Together: The Practice and Theory of Managerial Craftsmanship*. Google Books, 1998,
<http://books.google.com/books?hl=en&lr=&id=CtGgXt3Ci2sC&oi=fnd&pg=PA1&dq=eugene+bardach+AND+collaborative+capacity&ots=hYPhOn7XUY&sig=GPRF8Oa9O7xZS7QdvCZE3FmH5Vk#v=onepage&q=eugene%20bardach%20AND%20collaborative%20capacity&f=false> (accessed July 2, 2011).

capacity. Segal and Smith¹⁷ state that “conflict triggers strong emotions and can lead to hurt feelings, disappointment and discomfort. When handled in an unhealthy manner, it can cause irreparable rifts, resentments and break-ups. But when conflict is resolved in a healthy way, it increases our understanding of one another, builds trust, and strengthens our relationship bonds.” Segal and Smith list conflict resolution as the fifth and most critical of the key skills of emotional intelligence. Hocevar, Jansen and Thomas cite trust as a success factor and mistrust as a barrier in their list of the most frequently cited barriers and facilitating factors for collaboration.¹⁸

Organizational culture is a factor that contributes to the ability to build collaborative capacity. Hocevar, Jansen and Thomas note that a culture of collaboration is a driving force for building collaborative capacity in homeland security. Nahmad¹⁹ notes that Hocevar, Jansen and Thomas discuss the assumption that cultures within organizations can oppose collaboration and that an organization must see collaboration as a feasible and even desirable route for formulating problem domains and solving problems.

B. ICC MODEL OF SUCCESS FACTORS AND BARRIERS

In the summer of 2002, Gail Thomas, Susan Hocevar and Erik Jansen²⁰ began an Interorganizational Collaborative Capacity Research Project at the Naval Postgraduate School in Monterey, California. They define ICC as “the ability of organizations to enter into, develop and sustain interorganizational systems in pursuit of collective outcomes.” Hocevar, Thomas and Jansen’s model of ICC includes organizational domains that

¹⁷ Segal, Jeanne & Smith, Melinda, Conflict Resolution Skills, Helpguide.org, November 2010, http://www.helpguide.org/mental/eq8_conflict_resolution.htm (accessed August 15, 2011).

¹⁸ Hocevar, Susan, Jansen, Eric & Thomas, Gail Fann, *Building Collaborative Capacity for Homeland Security*, November 1, 2004, <http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA431358> (accessed August 15, 2011).

¹⁹ Nahmad, Abdo, *The Collaborative Capacity of the NYPD, FDNY and EMS in New York City: A Focus on the First Line Officer*, March 2010, <https://www.hSDL.org/?view&did=27182> (accessed August 15, 2011).

²⁰ Jansen, Eric, Hocevar, Susan Page, Rendon, Rene G, & Thomas, Gail Fann, *Interorganizational Collaborative Capacity: Development of a Database to Refine Instrumentation and Explore Patterns*, November 24, 2008, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA494264&Location=U2&doc=GetTRDoc.pdf> (accessed August 22, 2011).

contain both driving forces and restraining forces for collaboration—Purpose, Structure, Lateral Mechanisms, Incentives and People Practices.²¹ Figure 1 illustrates success factors for ICC that are associated with the five domains: felt need to collaborate, common goal, willingness to address other agencies' interests or cross-agency goals versus local organizational goals, formalized structure for coordination, formalized processes, sufficient authority of participants, role clarity, dedicated assets for collaboration, social capital, effective communication and information exchange, technical interoperability, combined training events, collaboration as a prerequisite for funding or resources, respect for other parties' interests, expertise, roles, perspectives and perspective/commitment. The model also includes restraining forces of collaboration: divergent goals, focus on regional or local agency concerns, lack of goal clarity, not adaptable to interests of other organizations, impeding rules or policies, inadequate authority of participants, inadequate resources, lack of accountability, lack of formal roles or procedures for collaborating, lack of familiarity with other organizations, inadequate communication and information sharing, competition for resources, territoriality, organization level distrust and lack of mutual respect, lack of competency and arrogance/hostility/animosity.

²¹ Hocevar, Susan, Thomas, Gail Fann & Jansen, Eric, *Building Collaborative Capacity: An Innovative Strategy for Homeland Security Preparedness*, 2006, <https://www.chds.us/?file&mode=dl&f=resources/uapi/summit10/Track2/Hocevar-Interorganizational-Collaborative-Capacity-02-031510-01.pdf> (accessed August 21, 2011).

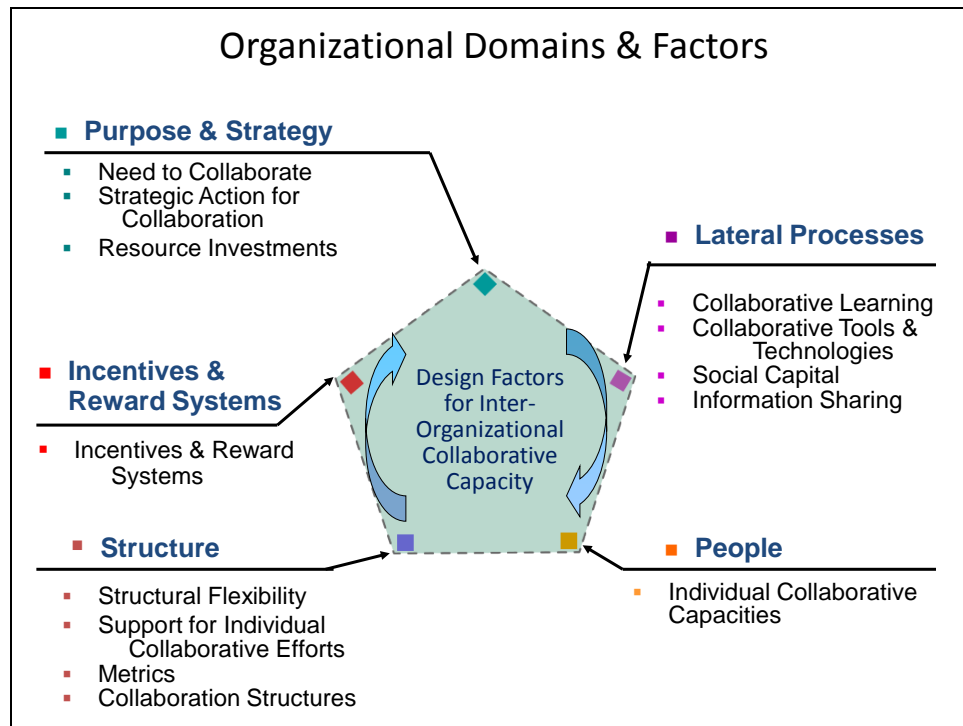


Figure 1. Interorganizational Collaborative Capacity: Domains & Factors²²

According to Hocevar (2010), all of the success factors significantly correlated with ratings of collaboration success but the most accurate predictors to ICC success are: felt need to collaborate, social capital, support for individual collaborative capacities strategic action for collaboration, information sharing and individual collaborative capacity. The study addresses the primary action research questions of how some agencies are able to develop successful collaborative relationships while others struggle and what factors contribute to or inhibit successful collaborations among organizations? The survey results are intended to be utilized as an information tool for leaders and change agents to assess the strengths and weaknesses of their organization's collaborative capacity factors for their individual and collective organizations, in the context of collaborative capacity being an interconnected system in a shared problem space. The recognition of specific strengths and weaknesses in collaborative capacity provides leaders and change agents with opportunities to design intervention strategies for the

²² Hocevar, Thomas & Jansen, 2010.

enhancement of a dynamic system's capacity to collaborate. Inherent to this methodology is recognition that the capacity for building interorganizational collaboration happens as a result of planning and strategic actions that develop the collaborative capacity environment using a systems approach.

C. LEADERSHIP'S ROLE IN BUILDING ICC

Building common ground and improving trust among organizational players requires effective leadership. Leaders set the stage for these organizational dynamics to be able to flourish. An important component of leadership is instilling common values in an organization. The dynamics of conflict management, building trust, building knowledge capital, providing leadership and building shared values are all woven into the tapestry of an organization's potential to build collaborative capacity.

Leadership studies abound, yet we still have much to learn in this area; researchers still debate whether leadership is a science or an art. A new leadership model has recently been introduced into homeland security termed *meta-leadership*—"meta-leaders reach across organizations and sectors to build cross-cutting strategies to protect the safety of their families, businesses and communities. They exchange information, share resources and coordinate systems and personnel. They use their influence and connections to guide a cooperative course of action."²³ The five dimensions of the meta-leader²⁴ are described as:

- the person of the leader and his/her awareness or problem assessment
- the problem, change or crisis that compels response
- leading one's entity and/or operating in one's designated purview of authority
- leading up to bosses or those to whom one is accountable
- leading cross-system connectivity

²³ CDC Foundation, *Meta-Leader Summit for Preparedness*, 2010, <http://www.metaleaderships summit.org/> (accessed October 29, 2010).

²⁴ Marcus, Leonard J., Isaac Ashkenazi, Barry Dorn, and Joseph Henderson, "The 5 Dimensions of Meta-Leadership," in *National Preparedness Leadership Initiative*, Harvard School of Public Health and the Kennedy School of Government at Harvard University, November 2007, <http://meta-leaderships summit.org/Files/meta/2011/FiveDimensionsofMeta-LeadershipComprehensiveBrief.pdf> (accessed October 10, 2010).

Boal and Schultz²⁵ acknowledge that organizations are increasingly being described as complex adaptive systems (CAS) that have the view that the behavior and structure of an organization emerges out of the interaction of a collection of organizational agents with seemingly little role for strategic leadership since the system self organizes. However, they go on to argue that strategic leaders play a crucial role in moving organizations to an environment of organizational learning and adaption by storytelling and dialogue, which shape the interactions and construct the shared meanings that provide the rationale by which the past, the present and the future of the organization come together.

Leaders enhance opportunities for building collaborative capacity in organizations by setting conditions for building and sharing knowledge, which enhances trust and performance among stakeholders. Lee, Gillespie, Mann and Wearing²⁶ of Australia examine the relationship between the leader as the knowledge builder, trust in the leader and in the team, knowledge sharing and team performance. Their findings indicate that “as the team builds respect for each other’s knowledge and expertise, the willingness to rely on each other is reinforced.” The knowledge-builder role is also about tapping into tacit knowledge. This involves the leader setting an example by conveying to the team his/her candid insights and experiences, concerns about the project, personal beliefs and lessons learned, as well as facilitating opportunities for the team to share. Their findings are also significant in that it suggests that team knowledge sharing was a significant predictor of team performance. “When team members share knowledge, their team was better able to meet project goals, achieve quality, meet customer’s expectations and achieve efficiency.”²⁷

²⁵ Boal, Kimberly B. and Schultz, Patrick L., “Storytelling, Time, and Evolution: The Role of Strategic Leadership in Complex Adaptive Systems,” *Leadership Quarterly* 18, no. 4 (2007): 411–418, <http://kimboal.ba.ttu.edu/Selected%20writings/story%20telling.pdf> (accessed January 20, 2011).

²⁶ Lee, Pauline, Gillespie, Nichole, Mann, Leon, & Wearing Alexandar, *Leadership and Trust: Their Effect on Knowledge Sharing and Team Performance*, 473, June 28, 2010, <http://mlq.sagepub.com/content/41/4/473.abstract> (accessed December 2, 2010).

²⁷ Lee, Gillespie, Mann, Wearing, *Leadership and Trust*, p. 485.

D. ICC FRICTIONS AND CREATIVE TENSIONS

The dynamic of organizational friction is not a new concept. General Carl von Clausewitz, the renowned nineteenth century Prussian soldier and military theorist, introduced the concept of friction as “a hindrance to the execution of strategy” in his 1832 seminal treatise *Vom Kriege*. Clausewitz used friction to describe the “myriad of small, but collectively numerous things that happen that cannot be foreseen or planned for, and which cause leaders to spend time on unforeseen decision making.”²⁸ Clausewitz noted that no organizational unit can be thought of as a single or solitary piece when he said, “let us reflect that no one part of it is in one piece, that it is composed entirely of individuals, each of which keeps up its own friction in all directions” (Graham, 1873, p. 7). Clausewitz believed that friction in war was the result of three primary factors: the danger of war, war's demanding physical efforts, and the presence of unclear information.²⁹ Similar factors—danger, demanding efforts and unclear information—exist in America's homeland security environment and specifically in Florida's CDM Enterprise.

Clausewitz also introduced the term “the fog of war” to discuss the confusion that can reign on the battlefield as a result of unclear information. America may be experiencing “the fog of homeland security” while seeking proper balance between security against varied threats and preservation of democratic freedoms. As Clausewitz observed in Chapter VII of *On War*, the fog of war causes even simple tasks to become difficult, due to friction. Likewise, tasks that may appear simple in homeland security are made difficult by friction and the fog of homeland security. As Clausewitz notes in *On War*, fog is not a certain point of concern but “is everywhere at once.”³⁰ In today's homeland security efforts, fog surrounds the homeland security team with a mist of uncertainty from whence the next threat will come and what will initiate the next event.

²⁸ Graham, J. J., *On War*, 1873, <http://www.clausewitz.com/readings/OnWar1873/TOC.htm> (accessed October 24, 2010).

²⁹ United States Air Force, *Clausewitz Condensed: Friction of War*, 2010, <http://www.au.af.mil/au/awc/awcgate/clauswtz/clwt000b.htm> (accessed October 25, 2010).

³⁰ Graham, *On War*, 8.

Clausewitz noted that the primary adverse effect caused by friction is in the realm of time management—that friction has a detrimental effect on the time that things take, in written plans, to actually implement in practice due to unexpected distractions. The most relevant issue that Clausewitz raises for the purpose of this research is that managing constraints is an important component of organizational effectiveness. Hence, the reduction of organizational friction enhances the capability of organizational effectiveness and throughput.

Past research illustrates the relationships between organizational friction and creative tension. Dr. Peter Senge describes creative tension in his book titled *The Fifth Discipline: The Art and Practice of the Learning Organization*³¹ as the difference gap between where you currently are as an individual or an organization and where you want to be. Senge discusses how creative tension “comes from seeing clearly where we want to be, our vision, and telling the truth about where we are, our current reality.” Note the distinct difference between organizational friction that Clausewitz described as forces that hinder the execution of strategy—restraining factors as described by Lewin—and Senge’s creative tension, which is a healthy seeking of closing the gap between a vision of where you want to be and the reality of where you currently are. Organizational friction is created by forces often beyond our control that cause leaders to spend additional time in decision making, while creative tension is a state of seeking new knowledge in order to enhance our knowledge, actions and circumstances. The terms are related in that both have a built-in likelihood for conflict, but are distinctly different in how the conflict is typically resolved by individuals and organizations. Organizational friction can cause delays and frustrations, while creative tension can lead to exciting new discoveries and opportunities.

Human factors that may create friction include mental models, personalities, interpersonal communications and human emotions. Mental models help explain why humans react differently; mental models provide the lenses through which people see their world and “they incorporate biases, values, learning, experiences and beliefs about

³¹ Senge, P. M., *The Fifth Discipline: The Art and Practice of the Learning Organization*, Infed., <http://www.infed.org/thinkers/senge.htm> (accessed September 26, 2010).

how the world works.”³² The term mental model was first introduced by Forrester in 1961 and is cited by Peter Senge in his discussions of learning organizations. Senge defined mental models as “deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action. Very often, we are not consciously aware of our mental models or the effects they have on our behavior.”³³

Schein discusses mental models—what he describes as cognitive redefinition³⁴ and notes that it can have impacts such as:

- semantic redefinition where we learn that words can mean something different than what we had assumed
- cognitive broadening where we learn that a given concept can be more broadly interpreted than what we had assumed
- new standards of judgment or evaluation where we learn that the anchors we used for adjustments and comparison are not absolute and that if we use a different anchor, our scale of judgment shifts

Schein uses the term teamwork as an example to describe his meaning and this example is pertinent to our examination of the building of ICC. In the United States, our focus on the individual causes a cultural assumption that society revolves around the individual and creates a cognitive framework that often rewards individualism, and winning over individuals makes collaborative behavior appear weak. We can make collaborative efforts appear strong by redefining teamwork as the coordination of individual activities for pragmatic ends that can encourage individuals to take actions towards creating, leading and participating in teams. Note that one of the success factors of the ICC project is collaboration as a prerequisite for funding or resources. Schein advocates that this process of cognitive redefinition is fundamental to any change if one wants it to last. Note the similarity of Schein’s cognitive redefinition to Boal and

³² Chermack, Thomas J., “Mental Models in Decision Making and Implications for Human Resource Development,” in *Advances in Human Resource Development* 2003 5:408, 410, 2003, <http://adh.sagepub.com.libproxy.nps.edu/content/5/4/408.full.pdf+html> (accessed October 28, 2010).

³³ Chermack, “Mental Models,” 410.

³⁴ Schein, Edgar H., *Cognitive Redefinition. Kurt Lewin’s Change Theory in the Field and In the Classroom: Notes Toward a Model of Managed Learning*, n.d., <http://www.solonline.org/res/wp/10006.html> (accessed November 11, 2011).

Schultz's argument that strategic leaders provide the shared mental constructs through dialogue and storytelling that provide meaning to organizations and link the past, present and future.

Senge espouses that generative organizational learning consists of five core disciplines: personal mastery, mental models, team learning, shared vision and systems thinking. Personal mastery consists of individual lifelong learning as a continual process with the guiding principle that organizations learn only through individuals who learn. This is significant when viewed in the context that Goldratt's Theory of Constraints (TOC), which I will discuss later in the literature review, and which espouses that a chain is only as strong as its weakest link. Senge's work provides emphasis that individual links in the system's chain must seek personal mastery as a continual process of lifelong learning that will continually harness the energy and creativeness of the individual components of a system. Personal mastery, as espoused by Senge, involves people with a high degree of personal mastery who are acutely aware of their own ignorance, their incompetence and their growth areas.

Senge's second core discipline of mental models relates to how we view deeply ingrained assumptions, beliefs, generalizations and mental images that influence how we understand the world and how we take action. Senge noted that entrenched mental models thwart changes that could come from systems thinking—his fifth discipline—and that moving the organization in the right direction entails working to transcend the sort of internal politics and game playing that dominate traditional organizations. Senge also noted that developing new mental models to foster organizational learning means fostering more openness and involves seeking to distribute business responsibility far more widely, while also retaining coordination and control.

Senge's third core discipline builds upon personal mastery and building a shared vision to create team learning. Team learning is developing a process of aligning and developing the capacities of a team to create the results its members truly desire. Senge advocates that the realization of team learning starts with dialogue—the capacity of team members to suspend assumptions and enter into a genuine thinking, together with the realization that a collective free-flowing exchange of information allows the group to

discover insights that are unattainable individually, and to recognize interactive patterns that undermine team learning. Note that collaboration with others is critical in this core discipline.

Senge's fourth core discipline of building a shared vision relates to building shared vision that is focused on the long-term future. Senge notes that when there is a shared vision, people excel and learn, not because they have to, but because they want to. His concept of creative tension is centric to this core discipline. Building a shared vision is critical to the success of ICC.

Senge's fifth discipline of systems thinking is the conceptual cornerstone of his approach to organizational learning. Systems thinking, as defined by Senge, is generally oriented towards the long term view. He views delays in the system and feedback loops as vital to the long-term view, while possibly inconsequential in the short term. The ICC model is designed to view the building of ICC as a system operating in a shared interorganizational problem space. Figure 2, from the ICC Model, illustrates this conceptual approach to viewing the building of ICC as a systems issue.

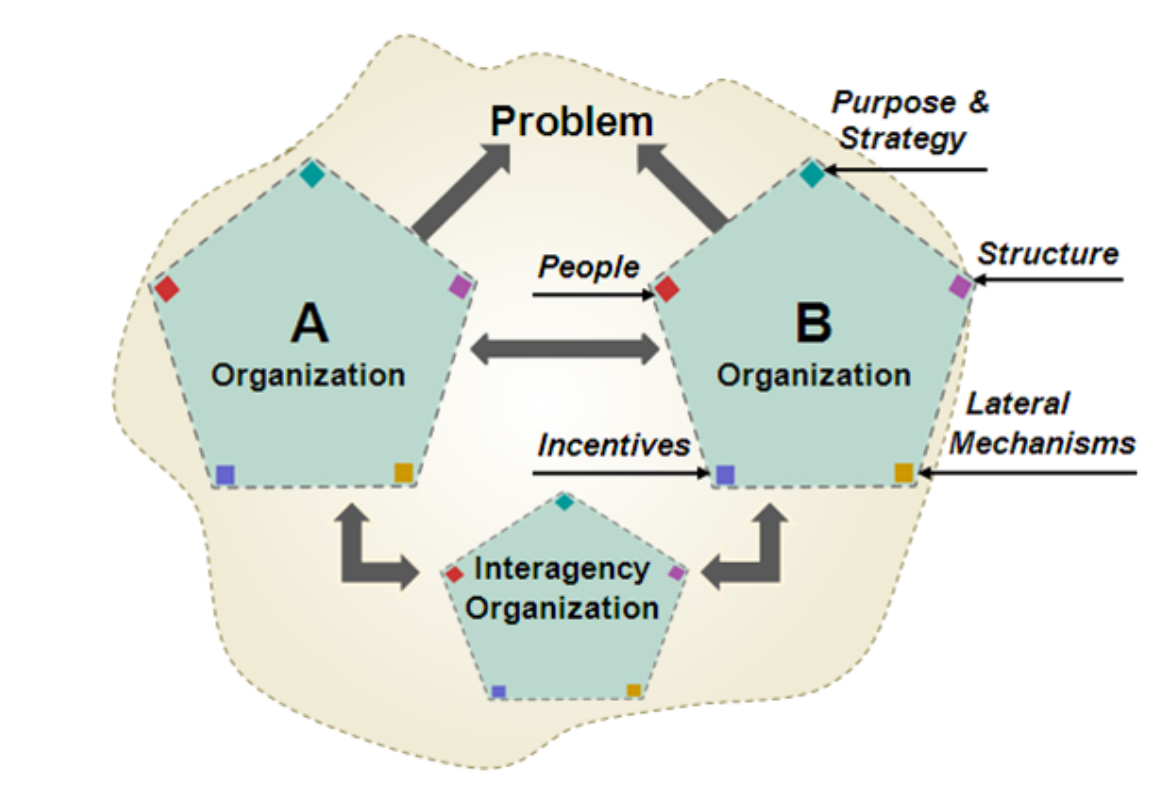


Figure 2. Organizations in a Common Problem Space³⁵

Readers may note that many of the above mentioned friction points in Senge's creative tensions share a nexus with ICC success and barrier factors. As examples, the ICC success factor of a felt need to collaborate has linkage to Senge's goals and priorities, and the ICC barrier factor of lack of familiarity with other organizations has linkage to Senge's discussion of consortiums of different organizational cultures. What follows are tables from my own analysis that illustrate possible relationships between the Hocevar, Thomas and Jansen ICC domains with their respective success and barrier factors to Senge's five core disciplines for organizational learning.

Senge's Core Disciplines for Organizational Learning

1. Personal mastery
2. Mental models

³⁵ From Hocevar, Thomas & Jansen 2010.

3. Team learning
4. Building shared vision
5. Systems thinking

Table 1. ICC Success Factors Correlation With Senge's Five Core Disciplines For Organizational Learning

Domains	Success Factors	Senge's Core Disciplines
Purpose	Felt Need to Collaborate	2, 4, 5
	Common Goal	2, 4
	Willingness to Address Other Agencies Interests or Cross-Agency Goals versus Local Organizational Goals	2, 4, 5
Structure	Formalized Structure for Coordination	2, 5
	Formalized Processes	2, 5
	Sufficient Authority of Participants	2, 5
	Role Clarity	2, 3, 5
	Dedicated Assets for Collaboration	5
Lateral Mechanisms	Social Capital	1, 4
	Effective Communication and Information Exchange	1, 2, 5
	Technical Interoperability	1, 5
	Combined Training Events	2, 3, 4
Incentives	Collaboration as a Prerequisite for Funding or Resources	2, 5

Domains	Success Factors	Senge's Core Disciplines
People Practices	Respect for Other Parties' Interests, Expertise, Roles, Perspectives	2, 4
	Perseverance/Commitment	1, 2

Table 2. ICC Success Factors Correlation With Senge's Five Core Disciplines For Organizational Learning

Domains	Barrier Factors	Senge's Core Disciplines
Purpose	Divergent Goals	2, 4
	Focus on Regional or Local Agency Concerns	2, 4, 5
	Lack of Goal Clarity	2, 5
	Not Adaptable to Interests of Other Organization	2, 5
Structure	Impeding Rules or Policies	2, 5
	Inadequate Authority of Participants	2, 5
	Inadequate Resources	2, 5
	Lack of Accountability	1, 2, 5
	Lack of Formal Roles or Procedures for Collaborating	2, 3, 5
Lateral Mechanisms	Lack of Familiarity with Other Organizations	1, 3, 4
	Inadequate Communication and Information Sharing	1, 2, 3, 5

Domains	Barrier Factors	Senge's Core Disciplines
Incentives	Competition for Resources	2, 5
	Territoriality	2, 4, 5
	Organization-Level Distrust and Lack of Mutual Respect	2, 3, 4
People Practices	Lack of Competency	1, 2
	Arrogance, Hostility, Animosity	1, 2

To conclude our discussion of Senge's work, we review how Senge viewed the critical relationship between building a shared vision and systems thinking. Senge believed that the discipline of building shared vision lacks foundation if practiced without systems thinking. He articulated that vision paints a picture of what we want to create and system's thinking reveals how we have created what we already have. The ICC Model may assist in developing a collaborative vision, as well as facilitating systems thinking, to analyze how collaborative capacity is created within an interorganizational problem space.

E. ICC AND ORGANIZATIONAL DEVELOPMENT

Goldratt espoused his Theory of Constraints (TOC) as an overall philosophy designed to effectively manage organizational change. This practice uses Problem Solving and Management Decision Making Tools called the Thinking Processes to logically and systematically answer the three questions of what to change, what to change to and how to cause the change.³⁶ Goldratt's Theory of Constraints has applicability to the collaboration process in that collaboration may be viewed in an organization seeking to build collaborative capacity as a throughput; Goldratt's theory of constraints espouses the basic theorem that a chain is only as strong as its weakest link and that sources of

³⁶ Dettmer, H. William, *Goldratt's Theory of Constraints: A Systems Approach to Continuous Improvement*, 1997, <http://search.proquest.com.libproxy.nps.edu/docview/214520960?accountid=12702> (accessed July 2, 2011).

friction must be identified and minimized to reach maximum throughput. If we accept this premise as true, then those seeking to build collaborative capacity may find it useful to identify sources of friction for building collaborative capacity and focus targeted educational efforts and change management toward those organizational units or links in a system that are perceived as requiring strengthening in collaborative capacity.

TOC has relevance to the building of interorganizational collaborative capacity based on basic principles in the TOC theory espoused by Goldratt. The prescriptive component of the theory³⁷ assists managers and change agents to answer three questions relating to systems and their constraints: where is the constraint, what should we do with the constraint and how do we implement the change? Several principles outlined in Goldratt's TOC support finding answers to these three questions:

- systems thinking is preferable to analytical thinking in managing change and solving problems
- ongoing improvement is imperative as the system's environment changes over time
- each system has a weakest link that inhibits the success of the entire system
- strengthening any link in a system's chain other than the weakest link does nothing to strengthen the entire system
- most of the undesirable effects in a system are a result of a few core problems
- understand a system before changing it
- solving the few core problems is a long-term solution while focusing on individual undesirable effects and ignoring the core problems is a short-term solution
- core problems are manifested through a number of undesirable effects linked through a network of cause and effect
- core problems are usually perpetuated by hidden or underlying conflict
- system problems are either physical or policy, with policy constraints usually being more difficult to identify and eliminate
- ideas alone are not solutions without implementation

³⁷ Broughton, Robert, Theory of Constraints. *Business Excellence*, 2011, <http://www.bexcellence.org/Theory-of-Constraints.html> (accessed November 9, 2011).

- inertia is the worst enemy of ongoing improvement

Broughton discusses five focusing steps for implementing Goldratt's TOC for an organization:

- identify the constraint that is the weakest link in a system
- decide how to exploit the constraint without committing to expensive changes or upgrades
- subordinate everything else to the elimination of the constraint
- elevate the constraint if steps 1 through 3 have not eliminated the constraint
- return to step 1 once the constraint is broken

Leaders and change agents interested in the building of collaborative capacity may find value in using the Goldratt TOC principles to provide a framework in order to eliminate identified ICC constraints. By leveraging Goldratt's TOC principles, change leaders can focus on identified barrier factors to identify core problems contributing to specific areas of concern. Is the core issue a physical problem, such as inadequate hardware and software systems, or is the problem a policy issue such as statutes or interagency procedures? Change agents can identify potential weakest links in the chain, such as in what part of the information-sharing process does the breakdown occur most frequently? Does the breakdown of information sharing occur between specific agencies in the collaborative environment? Are there contributing core problems such as inadequate social capital between agencies that cause information breakdowns? Can social capital be increased by increasing the interaction between agencies? Does the information-sharing breakdown occur more frequently at specific levels? Are there policies in place that preclude sharing of certain types of information? These are all examples of questions that may be asked by leaders and change agents to enhance communication and information sharing in the ICC strategic environment.

Political Scientist Eugene Bardach advocates the use of *Smart Practices*—it is only sensible to see what kinds of solutions have been tried in other jurisdictions, agencies or locales. You want to look for those that appear to have worked pretty well, try to understand exactly how and why they may have worked, and evaluate their

applicability to your own situation.³⁸ Bardach calls this search *smart practices*, instead of the more commonly used term *best practices*, because most practices are not ranked utilizing analytical research methods to adequately quantify them as the “best” method, but can be subjectively deemed to be a “smart” practice. Bardach states that a practice is a tangible and visible behavior. A practice may be a description of what one does or it may be an expression of some underlying idea—an idea about how some actions entailed by the practice work to solve a problem or achieve a goal.

Organizations may not always be able to control external threats but can take steps to reduce organizational friction created by internal forces. This review considers existing literature that may assist in determining how to reduce homeland security organizational friction and the fog of homeland security. Just as friction wear can be reduced by the proper lubricant, organizational friction can be reduced by the lubricant of organizational development including training and education. Organizational development’s primary goal is to change the attitudes, values and structures of organizations so that they can meet new demands.³⁹

Today’s understanding of organizational development is due to past efforts of leaders in the field such as Dr. Peter Senge, Dr. Peter Drucker, Dr. Chris Argyris, Dr. Kurt Lewin and Dr. Rensis Likert. This research project applies organizational development to the field of homeland security and provides homeland security professionals with tools to utilize in their own organizations. Homeland security organizations share similar characteristics as other large corporations that have benefited from past organizational development efforts. Organizational development adheres to a systems view of organizational change efforts as opposed to an individualist view.

Among the most influential scholars associated with organizational development are Kurt Lewin and Edgar Schein. Lewin espoused that change in humans is a three-

³⁸ Bardach, Eugene, “Smart (Best) Practices Research: Understanding and Making Use of What Look Like Good Ideas from Somewhere Else,” in *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, 3rd ed., (Washington, DC: CQ Press, 2009).

³⁹ Organization Development, in *Encyclopedia Britannica*, Encyclopedia Britannica Online, 2010, <http://www.britannica.com/EBchecked/topic/432078/organization-development> (accessed October 26, 2011).

stage process—unfreezing, changing and refreezing. The unfreezing phase is accomplished by the utilization of what he termed force field analysis: identifying what driving forces and restraining forces create equilibrium of the status quo. In Lewin's model, change is accomplished by either increasing the driving forces for change or decreasing the restraining forces for change. Edgar Schein, former Professor Emeritus of Management at the MIT Sloan School of Management and himself a leading figure in the field of change management, noted that there is little question that the intellectual father of contemporary theories of applied behavioral science, action research and planned change is Kurt Lewin. His seminal work on leadership style and the experiments on planned change that took place in World War II, in an effort to change consumer behavior, launched a whole generation of research in group dynamics and the implementation of change programs.⁴⁰

Lewin's work led others that followed him in the field of organizational development to conclude that the notion of resistance to change and that its use as a systems concept affecting managers and employees equally is credited to Lewin.⁴¹ For Lewin, group behavior was the result of the complex system or field of forces that surrounded it. Change only occurs when the field changes and the result is dependent on which forces increase and which forces diminish. In seeking to explain Lewin's results, French and Zander, in 1949, drew attention to the dynamic concept of force, field of forces and conflict of forces and maintained that allowing the workers to participate in the design of the system instilled confidence, while strengthening the forces that tended to increase confidence in themselves, and diminishing the forces that tended to weaken it.

This type participative approach is a central tenet in the process of building ICC—inclusion of the stakeholders in the process of designing the restructured framework for building ICC strengthens the participant's confidence in the collaborative environment and exponentially increases the likelihood for lasting change. This process

⁴⁰ Burnes, Bernard, Kurt Lewin, "Harwood Studies: The Foundations of OD." *The Journal of Applied Behavioral Science* 43, no. 2, June 2007, <http://search.proquest.com.libproxy.nps.edu/docview/236352406/fulltextPDF/130A992A7191BF2BD1/18?accountid=12702> (accessed July 19, 2011).

⁴¹ Burnes and Lewin, "Harwood Studies."

serves as an immediate catalyst for increasing confidence by strengthening certain forces while tending to diminish forces that served to lower confidence. This process may be more time consuming and require greater collective effort, but it helps to establish a long-term strategy. A more expedite top-down driven approach may be faster, but will likely not establish a long-term change effort.

The ICC research project that established success and barrier factors for building interorganizational collaborative capacity appears to have drawn upon Lewin's work by viewing ICC as a complex system of driving and restraining forces that either strengthen or hinder the building of ICC between agencies. A force field analysis methodology appears to have been utilized to develop building ICC driving and restraining forces. Much of Lewin's work was conducted over 70 years ago, but still provides a practical method for analyzing a complex system's forces that either enable or hinder the success of the overall system.

F. CONCLUSION

To conclude our literature review, let us now return to the research questions for this project and examine how the literature review will support the answers for this study. We have discussed the importance of building ICC within the homeland security environment and discovered many of the important tenets of ICC to include trust, shared values and a common vision. We have discovered many already existing smart practices for building collaborative capacity, such as the Naval Postgraduate School Interorganizational Collaborative Capacity Research Project, which provides proposed success and barrier factors for the building of ICC—the use of already developed success and barrier factors for interorganizational collaborative capacity developed by Hocevar, Thomas and Jansen can be used as a guide for the analysis of past emergency events to assess the presence of these factors and develop a storyline for the evolution of the building of collaborative capacity within an interagency collaborative effort. We've discussed that leadership plays an important role in the building of ICC in a complex adaptive system. Leadership, building shared values, knowledge building and sharing, and building trust all play an integral role in the building of collaborative capacity within

organizations. This storyline can then be used as a potential model for how to build collaborative capacity over a period of development in order to provide smart practices for future collaborative efforts. We have discussed organizational friction—what it is and what the potential impacts are for leaders. Organizational friction and creative tension have a shared nexus in organizational learning that can serve to enhance collaborative capacity if mental models are constructed to develop a sense of organizational learning as a process of continuous discovery. Goldratt’s Theory of Constraints can be leveraged as a means to understand constraining ICC factors. We have discussed organizational learning—Senge’s five disciplines for generative knowledge and how these disciplines may be related to ICC domains. We discussed smart practices—what they mean and how they can be used to foster new discoveries using already existing practices. Smart practices that can be leveraged to build collaborative capacity include interorganizational collaborative capacity, organizational development methods and Force Field Analysis. We examined how past research efforts in collaboration relate to the ICC Research Project, ICC domains for building ICC, and potentially influence these domains.

There is a shared nexus of systems thinking between Goldratt’s TOC, Senge’s Organizational Learning and Lewin’s FFA. All of these theories provide leaders and change leaders with tools to utilize as smart practices for change management. The ICC Collaborative Model takes a similar approach to provide a smart practice for conducting change management for the building of ICC.

Goldratt's Theory Of Constraints	Senge's Organizational Learning	Lewin's Force Field Analysis	Hocevar, Thomas & Jansen's ICC Model
<ul style="list-style-type: none"> • Systems Thinking • Ongoing Improvement • Each system has a weakest link • Solve core problems • Ideas alone are not solutions without implementation • Inertia is the worst enemy of ongoing improvement 	<ul style="list-style-type: none"> • Systems Thinking • Individual lifelong learning supports team learning • Mental models influence how we understand the world and take action • Entrenched mental models thwart changes that could come from systems thinking • Recognize interactive patterns that undermine team learning 	<ul style="list-style-type: none"> • Systems change affects managers and employees equally • Driving forces and restraining forces create equilibrium of the status quo • Group behavior is the result of a field of forces that surround it • Inclusion of stakeholders in the process of change strengthens participants confidence 	<ul style="list-style-type: none"> • ICC as a system • Ongoing ICC improvement • Develop new mental models for strengthening ICC • Identify weak links in ICC system • Implement changes to strengthen ICC • Promotes team learning • Recognize ICC patterns • Utilizes FFA to identify ICC success and barrier factors • Change group behavior

Figure 3. Theory of Constraints, Organizational Learning, Force Field Analysis and ICC Model Shared Characteristics

IV. METHODS

This thesis project uses a combination of a qualitative, formative program evaluation with research into specific case studies of Florida's Comprehensive Disaster Management (CDM) Enterprise. The study is limited in scope to the past 20 years. The initial starting point for the study is the Hurricane Andrew response in 1992, since this period marks a change in Florida's strategic paradigm concerning CDM. The study continues through the present period and focuses on the Florida State Emergency Response Team's (SERT) interagency efforts. The intent is to provide a consistent historical narrative of past efforts while searching for collaborative smart practices that may be leveraged to continue strengthening the Florida CDM enterprise.

A. DATA COLLECTION

Data used for this research includes information extracted from unclassified after-action reports from operations and training exercises, published congressional testimonies, public documents such as legislative statutes and plans and already-published interviews with public and private officials. Specifically, the study analyzes the following reports using an analytical method:

- The Governor's Disaster and Planning Response Review Committee Final Report (The Lewis Report) dated January 15, 1993
- Through the Flames...An Assessment of Florida's Wildfires of 1998: The Report of the Governor's Wildfire Response and Mitigation Review Committee dated December 31, 1998
- Florida Department of Military Affairs Florida National Guard Summer Storms 2004 After-Action Report August-October dated January 19, 2005

B. METHOD FRAMEWORK

The following is an outline of the method used to select and analyze the reports used in this thesis:

- Identify data sources to be examined. Consider start and end points, time between each event, and the breadth and objectivity of data and sources. Validate data sources by cross-referencing against other available sources

- Identify the conceptual model to be used for Force Field Analysis, including applicability, thoroughness of model, and use of systems thinking.
- Research ICC Model domains, success factors and barrier factors and develop an understanding of the meaning and significance of each success and barrier factor as well as relationships between factors
- Establish background and context for each data source by researching background for each event and provide a narrative for each event to establish context.
- Conduct qualitative FFA on each data source to identify ICC success and failure factors utilizing the ICC Model by examining each data source (After-Action Review/Lessons Learned Report) using each individual ICC success factor as a frame of reference. Look for specific and implied references.
- Develop a narrative for each ICC success and barrier factor including findings for each ICC success and barrier factor from each data source. Also consider additional findings that are not contained within success and barrier factors.
- Identify patterns of findings including relationships between success and barrier factors in individual and multiple data sources.
- Identify conclusions including the impact of timeline, environment on factors and relationships between factors. Also consider factors in context of known theories and concepts.
- Develop recommendations considering, future vision, systems thinking and national and state goals and priorities.

V. DISCUSSION AND ANALYSIS

This chapter examines three lessons learned in after-action reports from the Florida emergency management experiences of the past 20 years—each occurring approximately six years after the preceding examined event. The reports are examined in the chronological order that they occurred: Hurricane Andrew in 1992, Wildfires in 1998 and the aptly named Summer of Storms in 2004. The reports are examined using the Hocevar, Thomas and Jansen Interorganizational Collaborative Capacity (ICC) success and barrier factors as a force field analysis methodology for the identification of driving and restraining factors to the building of ICC within Florida’s CDM Enterprise. Both the specified and implied narrative of each report is systematically assessed for identifying each success factor and each barrier factor.

A background for each event is provided and then each of the five ICC domains are examined for success and barrier factors. Two tables are provided for each event showing the success and barrier factors that were identified as present. A narrative of contributing factors that were identified, other than the ICC domains, is provided. A conclusion for each event is then provided for discussing the event in the context of ICC.

A. HURRICANE ANDREW 1992

1. Background

Hurricane Andrew made landfall in South Florida on August 24, 1992. In 1992, Hurricane Andrew was the third most powerful storm to hit the United States in its recorded history, exceeded only by Camille in 1969 and the Labor Day Storm that struck the Florida Keys in 1935. Hurricane Andrew was the most costly natural disaster in America’s history at the time, with estimated damage exceeding \$20 billion dollars.

The Florida Governor at the time, the late Lawton Chiles, issued orders to establish The Disaster Planning and Response Review Committee to record lessons learned from the state level response and recovery efforts. This committee received oral testimony from over 45 five individuals and written recommendations from over 100 agencies, organizations and people either impacted or involved in the Hurricane Andrew

response during an eight-day series of meetings conducted between October 1992 and January 1993. The committee was assisted in its development of the report by a panel of 25 technical advisory experts.

The committee recognized that their task was to be forward looking in their examination of the past and ongoing event. The report makes this clear with the following introductory statement: “to ensure Florida takes advantage of the lessons that can be learned from Hurricane Andrew to improve emergency preparedness and recovery programs, Governor Chiles issued Executive Order 92-291 to create the Disaster Planning and Response Review Committee on September 11, 1992.” The commission subsequently compiled a report⁴² with a total of 94 recommendations to be considered by the Florida Governor and Florida Legislature. From these recommendations, the committee noted four major solutions that were repeatedly identified during testimonial collection:

- improve communications at and among all levels of government
- strengthen plans for evacuation, shelter and post-disaster response and recovery
- enhance intergovernmental coordination
- improve training

A strong argument can be made that the aftermath of Hurricane Andrew was the initial catalyst for change in the manner that Florida officials viewed the issue of emergency preparedness. In the book titled *Megacommunities*,⁴³ the authors describe how Florida changed their approach to hurricane response as a result of lessons learned from the 1992 Hurricane Andrew aftermath, and how the success of this approach became clear during the severe 2004 and 2005 hurricane seasons. This approach is described as deliberate involvement of a variety of organizations—public sector, corporate, non-governmental and faith-based in its emergency planning and activities.

⁴² Lewis, Phillip D., *The Governor's Disaster Planning and Response Review Committee's Final Report on Hurricane Andrew*, January 15, 1993, <http://www.floridadisaster.org/documents/Lewis%20Report%201992.pdf> (accessed August 12, 2011).

⁴³ Gerencser, Mark, Van Lee, Reginald, Napolitano, Fernando and Kelly, Christopher, *Megacommunities: How Leaders of Government, Business and Non-Profits Can Tackle Today's Global Challenges Together* (New York: Booz Allen Hamilton, Inc. Palgrave MacMillan Publishers, 2008).

Former Florida Governor, Jeb Bush, testified before the U.S. House Committee on Homeland Security October 19, 2005 and stated that “Florida learned a hard lesson about response and recovery after Andrew—that catastrophic storm was a wake-up call for all Floridians.”⁴⁴ This hard lesson referred to by then Governor Bush stemmed at least partly from negative public perception that the federal and state governments had failed the South Florida populace in responding to Andrew in a timely manner; this perception was publicly synopsisized by then Dade County, Florida Emergency Management Director, Kate Hale, who appeared on national television with the statement “where in the hell is the Calvary? They keep saying that we’re going to get supplies. For God’s sake, where are they?”⁴⁵ As a result of lessons learned from the aftermath of Hurricane Andrew, Florida moved to a new emergency response approach that stressed a proactive inter-disciplinary model, “specifically, it was now clear to Florida’s leaders that no government agency could manage this type of large-scale catastrophe on its own, so Florida moved to a new approach, deliberately involving a variety of organizations—public sector, corporate, non-governmental and faith based in its emergency planning and activities. This meant changing both the planning process and the relationship among those various groups.”⁴⁶

A major starting point for the change in Florida’s methodology for emergency preparedness issues can be traced to the report compiled by The Disaster Planning and Response Review Committee. This report is known as The Lewis Commission Report named after former State Senate President Philip D. Lewis, who served as the chairman of the commission.⁴⁷ Since these recommendations from a report compiled in 1992 marked the start of the modern era of Florida Comprehensive Disaster Management, it is worth reviewing the report again in the context of how it served to build collaborative capacity within Florida.

⁴⁴ Himberger, Douglas, Sulek, David and Krill, Jr., Stephen J., *When There is No Calvary* (Disaster Resource Guide. Santa Ana, CA, 2007), http://www.disaster-resource.com/articles/08p_056.shtml (accessed May 30, 2011).

⁴⁵ Gerencser et al., *Megacommunities*, 25.

⁴⁶ Ibid., 27.

⁴⁷ Mittler, *A Case Study of Florida’s Emergency Management*.

2. Purpose Domain

a. Success Factors

1.) Felt Need to Collaborate. The aftermath of Hurricane Andrew created a thorough reassessment by the state of Florida for the need to collaborate across government and with the private sector. Some of the report's major recommendations demonstrating the recognized need to collaborate are covered below, although the list is not all inclusive. The report's Recommendation 1 stated that "the Department of Community Affairs should work with Florida's counties, cities, the media and interested associations and organizations to develop and implement a comprehensive, multimedia and multilingual public information campaign on emergency preparedness issues." Comments from this recommendation included entering into a dialogue with the Florida Association of Broadcasters and the Florida Radio-Television News Directors Association, as well as coordinating with public schools, to include emergency preparedness issues on school curricula. Recommendation 2 discussed the Department of Community Affairs, county emergency operations agencies, voluntary organizations and the local mass media cooperatively developing procedures to use the Weather Channel, CNN and the mass media to broadcast emergency information to the public. Recommendation 3 discussed cooperation between the Florida Department of Transportation and the Florida Highway Patrol to lift tolls at specific locations if a severe traffic pattern develops as a result of emergency operations. Recommendation 21 discussed cooperation between the Florida Department of Transportation and the United States Coast Guard to develop a rule establishing procedures for when drawbridges should be locked down. Recommendation 24 discussed a collaborative effort between interested agencies such as the Florida Department of Education, Board of Regents, local school boards, local community college boards and the American Red Cross to survey and retrofit existing state, municipal and county owned buildings to use as emergency evacuation shelters. Recommendations 37–43 called for the establishment of an Emergency Support Function for communications to assure telecommunications support to all state and federal agencies for post emergency response efforts, to establish

collaborative procedures for emergency communications, pre-staging of communications equipment and sharing of existing communications equipment between governmental agencies.

2.) Strategic Action to Collaborate. The report listed many strategic action plan recommendations that would enhance interorganizational collaborative capacity. These initiatives primarily focused on the following areas: communications to include education, evacuation, shelter, post-disaster response and recovery operations, and availability of damage assessment data, medical care and relief, and coordination of volunteers, donations and supplies. The report's introduction discusses that "this plan (comprehensive emergency management plan) should be created in coordination with all possible agencies, organizations and associations because many other entities besides the Department of Community Affairs have vital roles and responsibilities under Florida's emergency preparedness and recovery plans and programs."

b. Willingness to Address Other Agencies Interests or Cross-Agency Goals Versus

1.) Local Organization Goals. The report's extensive use of so many agencies and participants is indicative that the committee resolved to address interagency goals. Important to this effort was the solicitation of much feedback from the community and private organizations as well as governmental agencies.

c. Barrier Factors

1.) Divergent Goals. Review of the Lewis Report indicates that primary divergent goals existed between the different geographical regions of the state. Even after Hurricane Andrew's devastation, the legislators of North Florida expressed reservations in placing the costs for what they perceived as a South Florida threat onto the citizens of North and Central Florida. This had been a point of contention in passing emergency management funding mechanisms prior to Hurricane Andrew and continued after Hurricane Andrew. Until a storm in March of 1993 impacted North and Central Florida, North and Central Florida legislators continued to oppose passing of legislation

to provide a centralized emergency management trust fund that included shared tax increases for the entire state. Hocevar, Thomas and Jansen note that “purpose can be driven by a commonly perceived risk or threat (felt need) or a common goal such as improving information sharing, coordinated training, or overall preparedness.”⁴⁸ Hurricane Andrew’s aftermath began the process of causing recognition of the potential for the threat of catastrophic disaster impacts and the 1993 winter storm served to place the perceived threat as a statewide problem.

2.) Focus on Local Organization over Cross-Agency Concerns.

The Lewis Report was created prior to establishment of the Florida State Emergency Response Team concept and subsequently focused on changes for individual agencies, albeit with a focus on interagency collaborations. The report focused on relationships and collaboration among individual agencies such as the Florida Department of Transportation and the Florida Highway Patrol or the Florida Department of Emergency Management and the Florida State Board of Education, but did not emphasize a network of interagency collaboration. The self-stated primary target audience of the report was county governments, which served the purpose of emphasizing that “all emergencies are local” and the primary customers for state support are the impacted counties.

3.) Lack of Goal Clarity. Because the report was written prior to the establishment of the State Emergency Response Team framework, goals were established for individual agencies but with minimal interorganizational team goals. The argument could be made that the Lewis Commission established the concept of a state interorganizational team, which subsequently became the State Emergency Response Team; the commission was comprised of an interorganizational team of subject matter experts and adopted a holistic approach to the lessons learned for future implementation. Goals were clear for individual agencies but did not establish a centralized collective means to monitor individual agencies’ goal attainment.

4.) Not Adaptable to Interests of Other Organizations. No specific examples were found. Examples were found that indicated the reverse to be more accurate—the proposals were adaptable to other interests of other organizations. One

⁴⁸ Hocevar, Thomas, and Jansen, *Building Collaborative Capacity*, 255–274.

example was a discussion on whether the proposals should be nested within the national framework and adopted by municipalities to mirror the county plans. Another example is that the proposals were written to target the strategic landscape of the entire state; it would have been easy to become fixated on what was generally perceived at the time of the writing as a South Florida threat.

3. Structure Domain

a. Success Factors

1.) Formalized Structure for Coordination. The report emphasized the need for a formalized structure to be in place prior to future emergency events. The mechanism recommended for implementation of the formalized structure for coordination was a thorough revision and enhanced understanding of Florida Statute Chapter 252. The report also recommended that emergency plans of municipalities should be consistent with and subject to the applicable county plans to ensure that close cooperation and coordination exists in each impacted county. The report recommended the adoption of three categories for emergencies: minor, major and catastrophic. Most of the report's recommendations were subsequently introduced into legislation in the 1993 Florida legislative session as House Bill 911 and Senate Bill No. 1858, which when enacted in 1993, became Chapters 93–211 and 93–128 respectively.⁴⁹

2.) Formalized Processes. The report noted several recommended deadlines for recommendations adopted. Many individual recommendations were not dated. However, the clear implication from the suspense date for completion and submission of the report, six weeks prior to the convening of the 1993 legislative session, was that the report's recommendations were tied to the next convening of the Florida legislature.

3.) Sufficient Authority of Participants. The report discussed that the committee struggled with the difficult issue of chain of command. The report noted that “counties are charged in the Florida Statutes with being responsible for maintaining

⁴⁹ Mittler, *A Case Study of Florida's Emergency Management*.

emergency preparedness programs for the entire county” and that “the county governments are ultimately accountable for meeting the needs of all impacted residents within the county.”

4.) Role Clarity. The report emphasized the importance of not only establishing roles, but also, of a shared understanding of those roles. The report stated that the relationships among, and roles and responsibilities of, county and municipal governments do not seem to be well understood or defined.

5.) Dedicated Assets for Collaboration. The report clearly stressed this requirement in many ways—recommending establishment of the Emergency Management Trust Fund, creation of an Emergency Support Function for communications, establishing collaborative partnerships for sharing of communication assets and establishment of a Health and Medical Services Emergency Support Function.

b. Barrier Factors

1.) Impeding Rules or Policies. Nothing of significance was noted in the report.

2.) Inadequate Authority of Participants. Throughout the report, recommendations were typically noted with a caveat for establishment of authority through state legislative means. The authors indicated that they understood the criticality of empowering future decision makers with adequate authority. Recommendation 53 noted that Chapter 252, Florida Statutes, and other statutes as necessary, should be amended to provide each state agency with lead responsibility for an emergency support function with authority to promulgate rules necessary to carry out its responsibilities.

3.) Inadequate Resources. This was a major theme throughout the report; an entire section is devoted to funding and opens with a discussion that Florida devoted insufficient resources to emergency management programs. What is not immediately clear in the report is whether the resources should be equitably dispersed to promote intergovernmental cooperation. It may be surmised that this was the intent, as the report discusses the funding was needed at both state and county levels.

4.) Lack of Accountability. Nothing of significance was noted in the report.

5.) Lack of Formal Roles or Procedures for Collaboration. The report discusses this issue in depth and describes how a lack of established procedures to manage intergovernmental coordination contributed greatly to many of the issues associated with the Hurricane Andrew response. The report, in many places, describes procedures such as emergency support functions to manage the collaboration. In some of the recommendations, the report acknowledges that procedures need to be established but do not provide details of what the procedures should entail. The critical factor is that the report's authors recognized the importance of the establishment of formal roles and procedures for managing collaboration.

4. Lateral Mechanisms Domain

a. Success Factors

1.) Social Capital. The report gave little indication of already established trust and interaction across interorganizational lines.

2.) Effective Communication and Information Exchange. The report discusses this area as a significant issue in the response efforts, as agencies appeared unclear on their responsibilities and roles. The report primarily discussed two related areas of information: the need for sharing of critical emergency information to the public and the need for a coordinated effort of information release and control. The report gave little indication of consideration for the information flow between organizations.

3.) Technical Interoperability. Several recommendations discussed incorporating computer information systems and software systems such as geographic information systems with collective training on these systems. Communication equipment upgrades was a consistent theme throughout the report.

4.) Combined Training Events. The report discusses that funding constraints had limited the state's ability to conduct combined training events, such as annual hurricane exercises, prior to Hurricane Andrew.

b. Barrier Factors

1.) Lack of Familiarity with Other Organizations. This appeared to be an issue. The report discusses this dynamic in the introduction under the heading of “Relationships between Federal, State, County and Municipality Governments Need to be Clearly Understood” and there is narrative that the committee spent a considerable amount of time grappling with the difficult issue of chain of command. Chain of command may have different meanings depending on what agency is using or hearing the term. The report contained several recommendations relating to liaisons, such as the counties serving as liaison for municipalities requesting resources from state or federal levels. The use of liaisons is a practical and accepted manner to gain insight into other organizational cultures.

2.) Inadequate Communication and Information Sharing. The report discusses how inadequate communication between levels of government concerning specific needs impacted post-disaster response and recovery. In the report’s introduction, the committee discusses that improving all aspects of communication, at and among all levels of government and with the public and media, must be made a priority.

5. Incentives Domain

a. Success Factors

1.) Collaboration as a Prerequisite for Funding or Resources. The potential for increased funding for all affected agencies through the establishment of a central state trust fund for emergency management created an incentive for increased collaboration in future preparedness. By recommending the Department of Community Affairs as the “gatekeeper” for the emergency management trust funds, the Department of Community Affairs was placed into a leadership role for building collaborative capacity.

b. Barrier Factors

1.) Competition for Resources. The report notes and acknowledges the disparity of allocated emergency management resources between large counties and small counties. It does not note that this is necessarily a problem as it recognizes an allocated annual amount per citizen for emergency management. The report recommended that the Florida Legislature vote to establish an Emergency Preparedness and Assistance Trust Fund to be administered by the Florida Department of Community Affairs. This funding would be a substantial increase from the past as the report noted that the state's general revenue funding to support emergency management had decreased by 31 percent over the previous three fiscal years. Although not covered in the report itself, the Florida Senate had previously disapproved similar legislation to establish an Emergency Preparedness and Assistance Trust Fund, due to controversy over a \$2.00 assessment on homeowners' insurance policies and a \$4.00 assessment on commercial policies. North and Central Florida senators had defeated previous attempts in 1990, 1991 and 1992 to enact similar legislation as they were resistant to their constituents paying for what they perceived, at the time, as a South Florida issue. The magnitude of the Hurricane Andrew devastation, combined with a fierce winter storm in March 1993, convinced the resistant senators that extreme storms were not just a South Florida concern and the legislation passed.⁵⁰

2.) Territoriality. State regional interests were a factor in the implementation of recommendations. North and Central Florida were not receptive to funding south Florida preparation for disaster. Media attention focused on Florida may have mitigated this dynamic since there appeared to be little distinction made between South Florida and other parts of the state when discussed in a national dialogue.

⁵⁰ Comfort, Louise K., Boin, Arjen & Demchak, Chris C., *Designing Resilience: Preparing for Extreme Events* (Pittsburg, PA: University of Pittsburg Press, 2010), 120, http://books.google.com/books?id=ZSQHUH_iYuYC&pg=PA120&lpg=PA120&dq=philip+d+lewis+florida+AND+the+lewis+report&source=bl&ots=yfvOkSKNil&sig=a4Y1Wz6PPLFQ5ArgVYI4TsoiM9I&hl=en&ei=BLaJTpnzM-fw0gHL_NCLDw&sa=X&oi=book_result&ct=result&resnum=2&ved=0CCMQ6AEwAQ#v=onepage&q=philip%20d%20lewis%20florida%20AND%20the%20lewis%20report&f=false (accessed October 3, 2011).

3.) Organizational Level Distrust and Lack of Mutual Respect. Nothing of significance was noted in the report.

6. People Practices Domain

a. Success Factors

1.) Respect for Other Parties' Interests, Expertise, Roles, and Perspectives. As previously discussed, the report's compilation was indicative of a respect for other parties' interests, expertise, roles and perspectives. The committee went to great effort to include a myriad of agency and interested stakeholders' thoughts and perspectives in order to develop a robust and thorough analysis of the current situation and to provide a roadmap for future efforts.

2.) Perseverance/Commitment. The report has little discussion of the people who responded to Hurricane Andrew. The introduction starts with a commendation to all who responded to Hurricane Andrew and states that the effectiveness of the effort to respond to and recover from the magnitude of the devastation represents a triumph of the human spirit over significant adversity. The report does mention the word "people" 46 times, and it is always in the context of the customers being served—people of the state of Florida. This may have been one of the greatest success factors in the strategic aftermath of Hurricane Andrew—Florida state officials recognized that emergency management was a collaborative effort between the government and the people of the state.

b. Barrier Factors

1.) Lack of Competency. Nothing of significance was noted in the report.

2.) Arrogance, Hostility, Animosity. Nothing of significance was noted in the report.

Table 3. List of Collaborative Success Factors Noted In Hurricane Andrew 1992 Report

Domains	Success Factors	Hurricane Andrew
Purpose	Felt Need to Collaborate	+
	Common Goal	+
	Willingness to Address Other Agencies Interests or Cross-Agency Goals versus Local Organizational Goals	+
Structure	Formalized Structure for Coordination	+
	Formalized Processes	+
	Sufficient Authority of Participants	+
	Role Clarity	
	Dedicated Assets for Collaboration	
Lateral Mechanisms	Social Capital	
	Effective Communication and Information Exchange	
	Technical Interoperability	
	Combined Training Events	
Incentives	Collaboration as a Prerequisite for Funding or Resources	+
People Practices	Respect for Other Parties' Interests, Expertise, Roles, Perspectives	+
	Perseverance/Commitment	+

Table 4. List Of Collaborative Barrier Factors Noted In Hurricane Andrew 1992 Report

Domains	Barrier Factors	Hurricane Andrew
Purpose	Divergent Goals	+
	Focus on Regional or Local Agency Concerns	+
	Lack of Goal Clarity	+
	Not Adaptable to Interests of Other Organization	
Structure	Impeding Rules or Policies	
	Inadequate Authority of Participants	+
	Inadequate Resources	+
	Lack of Accountability	
	Lack of Formal Roles or Procedures for Collaborating	+
Lateral Mechanisms	Lack of Familiarity with Other Organizations	+

Domains	Barrier Factors	Hurricane Andrew
	Inadequate Communication and Information Sharing	+
Incentives	Competition for Resources	+
	Territoriality	+
	Organization-Level Distrust and Lack of Mutual Respect	
People Practices	Lack of Competency	
	Arrogance, Hostility, Animosity	

7. Other Factors

a. Leadership

Strong leadership can be an incentive to collaborate. Governor Chiles displayed this trait by issue of Executive Order 92-291 on September 11, only three weeks after Hurricane Andrew made landfall on August 25. The commission's structure, consisting of 25 technical advisory experts, and its hearing from a wide range of witnesses, created an atmosphere of collaboration.

b. Collaborative Learning

Recommendation 52 suggests a post-disaster response and recovery element as a component of Florida Statute 252, Emergency Management and the Florida Comprehensive Emergency Management Plan. As a functional area of the response and recovery element, recommendation 52 called for training at the state level through the use of periodic exercises, a continuous training program for key individuals and alternates, detailed training manuals and operational guidelines. Recommendation 54 called for the same training processes to be implemented at the county level.

8. Conclusion

Table 3 and Table 4 indicate that many factors to start the process of building collaborative capacity within Florida Emergency Management efforts were implemented, albeit perhaps, without consciously recognizing that their recommendations would lead to enhanced collaborative capacity, by the Lewis Commission. The commission recognized that had been glaringly lacking success factors prior to Hurricane

Andrew's landfall and in the immediate two weeks post-landfall. Their recommendations—perhaps intuitively on their part—set the stage for Florida to begin building collaborative capacity within the Florida Comprehensive Disaster Management arena. The work of the commission should be heralded as a success story in the building of interorganizational collaborative capacity.

B. WILDFIRES 1998

1. Background

The wildfires of 1998 were caused by another extreme weather phenomenon experienced by Florida's residents. The first three months of 1998 were characterized by widespread flooding across the state as a result of an El Nino effect. Record rainfalls from January–March 1998, in Florida, caused streams and rivers to top their banks and damage property and cause evacuations. A rapid transition to a La Nina effect caused the rains to stop and Florida experienced the hottest and driest conditions in the past 104 years, creating extreme fire hazard conditions for several months. During this drought condition, Florida experienced massive wildfires across the state beginning with an Apalachicola fire that started on May 25. Eventually, approximately 4,000 firefighters from Florida and over 10,000 firefighters and emergency response personnel from 47 states—as well as more than 150 aircraft—would battle against nearly 2,300 separate wildfires that consumed almost 500,000 acres of the state. Costs for the 1998 Florida wildfire event soared to over \$160 million by the end of calendar year 1998 with over 300 homes damaged or destroyed. The value of lost timber, alone, was estimated at over \$300 million. The number of acres in Florida burned in the 1998 wildfires represented an increase of more than 1700 percent from Florida's typical five-year average.

The Florida governor at the time, the late Lawton Chiles, issued Executive Order 98–201 to establish the Governor's Wildfire Response and Mitigation Review Committee to record lessons learned from the 1998 wildfire response efforts.⁵¹ The committee met on six different occasions and conducted four public hearings during the

⁵¹ Lewis, Philip D. *Through the Flames...An Assessment of Florida's Wildfires of 1998* (Tallahassee, FL: Report of the Governor's Wildfire Response and Mitigation Review Committee, 1998).

months of September, October, November and December 1998. Using similar methodology as the Hurricane Andrew Governor's lessons-learned commission, the panel assembled a team of representatives from 22 agencies, organizations and the public supported by approximately forty technical advisors. The committee received both written and oral testimony from technical experts, officials involved in the response and members of the impacted public in order to formulate consensus recommendations for the governor, legislature, the Florida Congressional Delegation and local officials, for enhancing and sustaining Florida's wildfire programs in the future. The committee utilized a questionnaire survey regarding wildfire response to focus initial hearings, and also solicited comments from interested public and private organizations, as well as the general public through the internet. The committee's structure was organized by dividing into three groups of appointed members and technical advisors: mitigation and prevention, response, and recovery, with each sub-committee formulating recommendations for presentation to the entire committee for discussion and consensus.

The Florida firestorm of 1998 was a clarion call to many in the Florida emergency response field in that the state had become focused on response to hurricanes, tornados and floods. The devastation caused by massive wildfires alerted the entire state, especially members of the State Emergency Response Team, which was formed in 1994 that emergencies come in many surprising and unexpected forms. An argument can be made that this seminal event brought into clearer focus the need for comprehensive disaster management. This event further tested and validated the measures that had been put into place by the state in the past five years, since publication of the Hurricane Andrew Lewis Report. Earlier tests had included a 1993 winter storm, an active 1995 hurricane season—to include Hurricane Opal which was the tenth deadliest recorded storm on record—and the El Nino floods. The 1998 Wildfire event was also the first major test by Florida of the Emergency Management Assistance Compact (EMAC) since Congress consented to the Compact in 1996. EMAC had originally been formed as the Southern Regional Emergency Management Compact by the Southern Governors

Association as a result of lessons learned from Hurricane Andrew's devastation of Florida in 1992. In 1995, the Southern Governors Association opened membership to all United States of America states and territories.⁵²

The commission's report consisted of a total of 90 recommendations and 77 pages. From these 90 recommendations, the committee submitting the report noted four major themes that were repeatedly mentioned during testimonial collection:

- coordination
- communication
- training
- wildland fuel reduction

It is worth noting that the Florida Division of Emergency Management had, by this time in its development, recognized and embraced the concept of inter-agency cooperation. The Division had reacted to hurricanes in 1995—notably Allison, Erin and Opal—and built their response efforts around an inter-agency approach patterned after the National Response Framework. By this time, there were a total of 16 Emergency Support Functions within the State Emergency Response Team.

2. Purpose Domain

a. Success Factors

1.) Felt Need to Collaborate. Recommendations 1–6 demonstrate recognition of the need to collaborate; they all fall into what the committee categorized as Issue A titled *Enhancing Intergovernmental Relationships and Coordinated Action*. The committee discussed the need to harness statutory responsibility with the practical job of managing urban-wildland fire response interface across the local, county, state and federal continuum. The centerpiece recommendation for the report is listed as 1, which calls for establishing funding resources for development of an integrated Wildfire Response Plan to enhance intergovernmental relationships and better coordinate

⁵² United States Government Accountability Office, *Emergency Management Assistance Compact: Enhancing EMAC's Collaborative and Administrative Capacity Should Improve National Disaster Response* (GAO-07-854) 2007, <http://biotech.law.lsu.edu/blaw/GAO/d07854.pdf> (accessed October 4, 2011).

operational response to wildfires. This plan would include mechanisms for activation, mobilization, response, resourcing and periodic training exercises.

2.) Common Goal. The common goal of the participating agencies appeared to stem from what the report utilized as its three primary categories—wildfire response, recovery from wildfires and prevention/mitigation of wildfires. The committee recognized that simply extinguishing the wildfires in 1998 was only one component for success. The 90 recommendations made by the committee each fell under one of the three primary categories.

3.) Willingness to Address Other Agencies' Interests or Cross-Agency Goals Versus Local Organization Goals. The forming of the Wildfire Response and Mitigation Review Committee was, by itself, a strategic action to collaborate between the whole of government and interested stakeholders. Twenty-two agencies and organizations participated, with additional input from the general public and impacted groups. This seeking of input from multiple perspectives is a strategic action for collaboration. Milward and Provan,⁵³ from the University of Arizona, term this type of approach *Community Capacity Building Networks* with the key characterizations of having the primary goal to build social capital in community-based settings, having a purpose both current and future oriented, and often involving a wide range of agencies with many emergent sub-networks to address different needs that may arise. The report discussed exactly the sub-networks mentioned by Milward and Provan when their first recommendation called for a district level District Wildfire Services Council (DWSC) made up of representatives from the Division of Forestry, the Florida Fire Chiefs Association, the Division of State Fire Marshal and local and county career and volunteer fire departments with the Division of Emergency Management, county emergency management, Florida National Guard and federal agencies providing liaison as required.

⁵³ Milward, H. Brinton and Provan, Keith G., *A Managers Guide to Choosing and Using Collaborative Networks*, Networks and Partnership Series, IBM Center for the Business of Government, 2006, www.businessofgovernment.org (accessed October 4, 2011).

b. Barrier Factors

1.) Divergent Goals. Nothing of significance was noted in the report.

2.) Focus on Regional or Local Agency Concerns. The Florida Division of Forestry has statutory responsibility for wildfires within the state and has statewide resources to carry out this responsibility. The report noted that the urban-wildland interface fire response belongs to local, county, state and federal emergency service responders working in an inter-agency close partnership. Much of the report focuses on the establishment of structures and frameworks to enhance these partnerships. The report implies that there was some pre-event focus on individual agency concerns; one example is that aviation fire suppression equipment was incompatible with other SERT aviation assets.

3.) Lack of Goal Clarity. Nothing of significance was noted in the report.

4.) Not Adaptable to Interests of Other Organizations. The report discussed how unified commands should utilize input from public and private land managers through a liaison position in order to represent their interests. The implication from this recommendation is that this input may not have always been solicited during the 1998 wildfires. The report notes that their knowledge of their land and available resources can provide invaluable intelligence and assistance to fire commanders. An assumption can be made that emergency professionals may have been concerned with safety and liability issues. Other discussion in the report reflected on previous practices of limiting prescribed burning as a preventive measure designed to limit potential for catastrophic fire events such as the 1998 firestorm. The report indicated that local and state quality air ordinances had caused an overabundance of fuel sources and that there was a need to balance the ordinances designed to protect air quality with the need to eliminate wildfire fuel sources.

3. Structure Domain

a. Success Factors

1.) Formalized Structure for Coordination. As previously mentioned, the formal structure recommended by the committee primarily consisted of establishment of a Wildfire Response Plan. The plan called for leveraging already existent Division of Forestry districts to establish a step-process ascending from local to county to state to federal as required. The recommendations also called for local and county plans to be developed within the framework of the Wildfire Response Plan.

2.) Formalized Processes. The report completion was prior to the convening of the 1999 Florida legislative session so that recommendations could be considered by the Florida House and Senate.

3.) Sufficient Authority of Participants. The report discussed that the Division of Forestry is the statutory designee for wildfire response. It also discussed the application of criteria or “triggers” that would be used to move the Incident Command Structure to another appropriate level. The report also discussed the utilization of the Incident Management System (IMS) as the authority for participants involved in collaborative efforts and unified command structures.

4.) Role Clarity. The report seemed to indicate role clarity being already established and well understood at the basic level by following the provisions of the Incident Management System (IMS) that called for the first arriving agency to assume command of the incident. The ambiguity that surfaced occurred in the interface between the wildland areas and the urban and suburban areas. Here is where the committee’s report discussed collaboration using a unified command operation between agencies.

5.) Dedicated Assets for Collaboration. The focus in this report was on fire suppression equipment and the need for prepositioned supplies prior to incidents occurring. Aircraft that had the capability of being interoperable with fire suppression equipment was discussed along with communications equipment that provided interoperability.

b. Barrier Factors

1.) Impeding Rules or Policies. As previously mentioned, the need to balance clean air ordinance requirements with the need for prescribed burning, was discussed. Also discussed were clarifying or amending rules to facilitate fuel management strategies while taking into consideration rules for traffic safety, insurance and liability factors, right-of-ways and land management.

2.) Inadequate Authority of Participants. Nothing of significance was noted in the report.

3.) Inadequate Resources. The report made recommendations for increased funding, especially in the area of communications interoperability and training. This discussion was especially noted as an area of concern for agencies other than the lead agency for wildfires. Resources for wildfire prevention and mitigation were highlighted as a resource shortfall prior to the 1998 wildfire event.

4.) Lack of Accountability. Nothing of significance was noted in the report.

5.) Lack of Formal Roles or Procedures for Collaboration. The report discussed the utilization of Unified Command as a component of the Incident Management System. The report also discussed the need for representation from the Division of State Fire Marshals and the Florida Fire Chiefs Association whenever a Multi-Agency Coordinating Group (MAC) is established by the Division of Forestry. The report also emphasized the need for all participants to have knowledge of the existing formal roles and procedures for managing collaborative efforts. The primary areas of concern appeared to be the urban-wildland interface areas and management of large area complexes that covered several incident sites concurrently. Emphasis was made on training exercises designed to train participants in the management of unified commands.

4. Lateral Mechanisms Domain

a. Success Factors

1.) Social Capital. It's interesting to note that many of the same personnel who participated in the 1992 (Hurricane Andrew) Disaster Planning and

Response Review Committee also participated in the 1998 Governors' Wildfire Response and Mitigation Review Committee. As a result, a notable thematic change in language occurs from the Hurricane Andrew Report to the Wildfires 1998 Report. In the Hurricane Andrew report, the tone was often in the form of "we must collaborate more" whereas the Wildfires 1998 report has a noticeable tone of "how can we collaborate more?" The wording is subtle but speaks volumes in that the interpersonal networks facilitating collaborative capacity has now expanded and the underlying question is not whether there is value in collaboration, but how to encourage it more. The focus has shifted towards what systems can be put into place to network more with other agencies.

2.) Effective Communication and Information Exchange. In addition to discussion of collaborative efforts for public information, the report provided several recommendations calling for information sharing between the Division of Forestry and the Department of Insurance. Examples of creative incentives for collaboration were creating new standards for effective wildfire mitigation practices to share with architects, engineers and landscape planners, and collaborating with the DOI to develop incentives for homeowners to have safe firebreak zones around dwellings.

3.) Technical Interoperability. Inadequate communications interoperability between responders continued to be a theme in the report. Especially noteworthy was the discussion of airspace management challenges that could lead to safety issues when operating in restricted visibility conditions. The report did not mention the relatively new State Emergency Operations Center (SEOC) in detail, but it was an important enabler for collaboration during the Wildfire event as well as the floods that occurred January–March 1998. The new SEOC was completed and occupied in July 2006. The SEOC provided new technologies at the time, as well as adequate space for collaborative efforts to occur at the state level.

4.) Combined Training Events. Discussion in recommendation 1 discusses that a Wildfire Response Plan should be developed and which should include an annual training program to include exercises between training participants. The clear implication is that these types of events had been lacking in previous years.

b. Barrier Factors

1.) Lack of Familiarity with Other Organizations. The report's emphasis on conducting more inter-agency training exercises indicate that this was an area of concern during the 1998 wildfires. The various command structures associated with management of fires spread across wide geographic areas, with a myriad of government and private organizations responding, is a challenging process. The report indicated that there were issues associated with familiarity, even within the state-level fire-response agencies, such as the Division of Forestry and the State Fire Marshals.

2.) Inadequate Communication and Information Sharing. Communication interoperability between the responding agencies was an area of concern in the report. As one example, communication interoperability was discussed as a safety issue associated with airspace management during fire suppression efforts. Another area of concern in the report were communication strategies to keep the public informed during the crisis; examples were provided where many local residents only became aware of the need to evacuate when law enforcement personnel came to their door to advise them of evacuation orders. There was also discussion of needing to enhance information sharing between public information officers at the various levels of government to preclude conflicting public releases of information.

5. Incentives Domain

a. Success Factors

1.) Collaboration as a Prerequisite for Funding or Resources. By providing funding from the general revenue fund for all affected agencies and making the Division of Forestry the administrator of wildfire funding, an incentive for collaborative efforts was established. Establishing the Division of Forestry as the fund facilitator for wildfires and the Division of Emergency Management the fund facilitator for emergency management at first appears counterintuitive, but may actually have provided additional incentive for collaboration by setting up separate networks for collaboration and, thereby, providing redundancy. Other discussions relating to funding were addressed in recommendations that included improving communication and fire suppression

equipment interoperability to enhance interorganizational collaborative efforts. Recommendations were also made for funding of interorganizational training such as providing fire suppression training to National Guard aviation personnel.

b. Barrier Factors

1.) Competition for Resources. Nothing of significance was noted in the report.

2.) Territoriality. This appeared to be a theme throughout the report based on much discussion of management of the urban-wildland areas and fire response on private lands.

3.) Organizational Level Distrust and Lack of Mutual Respect. Nothing of significance was noted in the report.

6. People Practices Domain

a. Success Factors

1.) Respect for Other Parties' Interests, Expertise, Roles, and Perspectives. The report had dialogue stressing the expertise of specific parties and the roles of personnel. There was emphasis placed on wildfire training for individuals and organizations. The report indicated that the collaborative capacity of people had been enhanced as a result of actions taken by the state, after Hurricane Andrew, and as a result of people having worked together as members of the State Emergency Response Team.

2.) Perseverance/Commitment. The report discusses that a total of 130,000 people were evacuated from their homes during the firestorm with over 10,000 firefighters from across the nation participating for almost two months. The safety record of no fire deaths of responders or citizens is heralded as a result of the commitment of a dedicated team of professionals.

b. Barrier Factors

1.) Lack of Competency. Nothing of significance was noted in the report.

2.) Arrogance, Hostility, Animosity. Nothing of significance was noted in the report.

Table 5. List of Collaborative Success Factors Noted in Wildfires 1998 Report

Domains	Success Factors	Wildfires 1998
Purpose	Felt Need to Collaborate	+
	Common Goal	+
	Willingness to Address Other Agencies Interests or Cross-Agency Goals versus Local Organizational Goals	+
Structure	Formalized Structure for Coordination	
	Formalized Processes	
	Sufficient Authority of Participants	+
	Role Clarity	+
	Dedicated Assets for Collaboration	
Lateral Mechanisms	Social Capital	+
	Effective Communication and Information Exchange	
	Technical Interoperability	
	Combined Training Events	
Incentives	Collaboration as a Prerequisite for Funding or Resources	+
People Practices	Respect for Other Parties' Interests, Expertise, Roles, Perspectives	+
	Perseverance/Commitment	+

Table 6. List of Collaborative Barrier Factors Noted in Wildfires 1998 Report

Domains	Barrier Factors	Wildfires 1998
Purpose	Divergent Goals	
	Focus on Regional or Local Agency Concerns	+
	Lack of Goal Clarity	
	Not Adaptable to Interests of Other Organization	+
Structure	Impeding Rules or Policies	+
	Inadequate Authority of Participants	
	Inadequate Resources	+
	Lack of Accountability	

Domains	Barrier Factors	Wildfires 1998
	Lack of Formal Roles or Procedures for Collaborating	+
Lateral Mechanisms	Lack of Familiarity with Other Organizations	+
	Inadequate Communication and Information Sharing	+
Incentives	Competition for Resources	
	Territoriality	+
	Organization-Level Distrust and Lack of Mutual Respect	
People Practices	Lack of Competency	
	Arrogance, Hostility, Animosity	

7. Other Factors

1.) Leadership. Governor Chiles displayed leadership by issuing Executive Order 98-201 on August 13, 1998. Although the worst of the fires were over by the end of July 1998, many fires continued to burn for many weeks. However, it was recognized that recommendations needed to be crafted and published prior to the next Florida legislative session in the spring of 1999. This timing turned out to be crucial since there was a continuing La Nina effect and there was another wildfire event in summer of 1999.

2.) Collaborative Learning. The report stressed the need for the Florida Legislature to designate the Division of Forestry as the lead agency for the development of a collaborative Florida Center for Wildfire and Forest Resource Management Training.

3.) Language of the Report. The report consisted of 90 recommendations. It is noteworthy that over 50 of these recommendations were made in the form of some type of interorganizational collaboration between two or more agencies. The words partnership, coordination and agreements were utilized in many of the report's recommendations. The commission compiling the report clearly recognized that success was to be gained through collaborative efforts between federal, state, county and municipalities as well as private organizations and the populace.

8. Conclusion

The above tables indicates that the Florida CDM enterprise's collaborative capacity had matured—likely as a result of collaborative processes implemented stemming from lessons learned from Hurricane Andrew in 1992. Trust had grown between agencies as well as trust in the collaborative process itself. Social capital was now being built as interpersonal networks were expanding through shared training exercises, meetings and more frequent interaction stemming from previous emergency events. The primary challenge for the SERT was a new threat profile that required new procedures and mission profiles to be created. Technical interoperability was expanding as emerging technologies were leveraged. Information exchange increased through expanded computer and communications systems. Respect for other parties' expertise and roles was enhanced as organizations collaborated on the wildfire response, recovery and mitigation.

C. SUMMER OF STORMS

1. Background

The 2004 Florida season of storms was unprecedented for the number of major storms impacting one state during the same season. Five separate storm events: Tropical Storm Bonnie, Hurricanes Charley, Frances, Ivan and Jeanne impacted Florida within a catastrophic six-week period between August 12 and September 26, 2004. Eventually, all 67 Florida counties would receive a federal disaster declaration. At the time, the total costs for the storm damage was the most costly total natural disaster in United States history. Due to the magnitude of the series of severe weather events, all state agencies were engaged to an unprecedented degree.

The Florida National Guard was a major force provider to the Florida State Emergency Response Team in 2004 with a total of 7,600 Soldiers and Airmen called to active duty for defense support to civil authorities through the five storms. Adding to the complexity of the mobilization was a reduced pool of National Guard personnel and equipment to draw upon due to Global War on Terror deployments. As such, an unprecedented use of Emergency Management Assistance Compact (EMAC) and

Memorandums of Agreement were utilized to augment Florida State Emergency Response Teams. These inter-state mobilizations and deployments were a new chapter in collaborative emergency management and served as a dress rehearsal for Hurricane Katrina in 2005.

The Florida National Guard hosted a Joint Universal Lessons Learned System (JULLS) After Action Report/Lessons Learned Conference in November 2004 and published a subsequent written report⁵⁴ on January 19, 2005. This report is worth further research in the interest of discovering what role interorganizational collaborative capacity played in the success of the Florida 2004 emergency response effort.

Florida has received many favorable comments on its hurricane response efforts. Gerencser, Van Lee, Napalitano, Kelly and Isaacson state in their book titled *Megacommunities* that:

...during the severe 2004 and 2005 hurricane seasons, a series of high-powered hurricanes and tropical storms (Hurricanes Charley, Frances, Ivan, Jeanne, Dennis, Katrina, Rita, and Wilma, and Tropical Storms Bonnie, Ophelia, and Tammy) struck Florida. The state's government, business and civil organizations quickly mobilized, working together—as they had planned and trained to do—to provide aid for relief and recovery. This new model for collective leadership stands in stark contrast to the efforts following Hurricane Katrina. And indeed, Florida played an integral role in supporting southern Mississippi and Louisiana during Katrina's aftermath. Within hours of the storm's landfall, Florida began deploying more than 3,700 first responders to the affected areas.⁵⁵

Kathleen Tierney, Director of the National Hazards Center at the University of Colorado at Boulder, stated that “Florida is being looked upon as one of the very best prepared states.”⁵⁶ *Wall Street* journalists Cooper and Block state in a 2006 book that “as disaster experts like to say, FEMA didn't rescue Florida, Florida rescued FEMA. Of all

⁵⁴ Burnett, Douglas, *Florida National Guard Summer Storms 2004 After Action Report* (St. Augustine, FL: Florida Department of Military Affairs, 2005).

⁵⁵ Gerencser et al., *Megacommunities*, 26–27.

⁵⁶ Stephey, M. J., “FEMA Chief W. Craig Fugate,” *Time*, March 6, 2009, <http://www.time.com/time/nation/article/0,8599,1883485,00.html> (accessed April 19, 2011).

the southern states vulnerable to hurricane strikes, Florida was the best prepared. Thanks, in part, to the debacle following Hurricane Andrew in 1992, the state had gotten serious about preparedness.”⁵⁷

2. Purpose Domain

a. Success Factors

1.) Felt Need to Collaborate. An interesting dynamic occurred during the Florida season of storms in 2004. Because of the extreme operational tempo of the storms and the felt need to collaborate in order to meet the local county requirements, decentralized validation of mission requests became a frequent and recommended pattern. This decentralized validation meant that mission requests for state assets could be validated for approval at the local level, without having to be approved at the centralized state level first, as is the customary procedure. The felt need to collaborate overrode the procedural status quo and trust between agencies became the “coin of the realm” in that the state used a Forward SERT located in heavily impacted areas and relied even more heavily than in the past on the county level to make informed decisions with integrity. In return, the county level trusted the state agency personnel to back up their decisions and provide requested resources. Because of a felt need to collaborate in order to meet the common goal mission requirements, speed became more of an important tenet than standard procedure. Also adding to a felt need to collaborate was a desire by senior leaders—perhaps due to recognizing the impact Hurricane Andrew had on the 1992 Presidential race—not to allow the response to the 2004 season of storms become a factor in the 2004 presidential race. A standard was established early in the 2004 response efforts to have no impact on the presidential race.

2.) Common Goal. Because of the vast damage to the entire state, a common goal of timely response became more pronounced than may have been the case in previous past response events. The report indicated that there was a sense of “We’re all in this together” as the damage became more extensive over the entire state.

⁵⁷ Cooper, Christopher & Block, Robert, *Disaster: Hurricane Katrina and the Failure of Homeland Security*, 86 (New York: Times Books: Henry Holt and Company, LLC., 2006).

For the Florida National Guard, this dynamic became more apparent as almost half of the state's National Guard armories were damaged by the storms. It was also significant that so many Soldiers and Airmen's homes were threatened and damaged, which added to the sense of mission importance for support of civil authorities. Support, trust and guidance for collaborative partnerships by the State Coordinating Officer were made clear by the report as a key to success.

3.) Willingness to Address Other Agencies Interests or Cross-Agency Goals Versus Local Organization Goals. The report discussed that the State Coordinating Officer considered Florida National Guard rest and refit requirements between storms when supporting and de-conflicting local mission requests. This was significant in that many Soldiers and Airmen had recently returned from deployments and many of their own homes and local armories had been damaged by storms. An assumption can be made that the same considerations were given to other state agencies impacted by the storms.

b. Barrier Factors

1.) Divergent Goals. Divergent goals were caused as a result of the succession of storms over an extended period. The report discusses that the rapid succession of hurricanes required that planning for the next mission was concurrent with execution from the last. Adding to the complexity was the geographical area of concern; the entire state was impacted before the end of the storm period concluded. The management and balancing of so many divergent goals was a major challenge for emergency managers.

2.) Focus on Regional or Local Agency Concerns. The report discusses that the Florida emergency management paradigm is to focus on impacted counties. Hence, focus on the response to support impacted counties is not a barrier in the context of Florida emergency management. The Florida SERT collective effort to support local county agency needs can be considered a success factor.

3.) Lack of Goal Clarity. Nothing of significance was noted in the report.

4.) Not Adaptable to Interests of Other Organizations. Nothing of significance was noted in the report.

3. Structure Domain

a. Success Factors

1.) Formalized Structure for Coordination. The report discusses that EMAC was a lifesaver that significantly enhanced capabilities and filled the gap created by federal deployments. Many units from the Florida National Guard were deployed overseas in support of the Global War on Terror. By this stage in the maturation process of the Florida emergency management program, the focus had shifted from strategic actions toward more focus on social capital and trust between agencies. Strategic action now shifted from collaboration between state agencies and towards inter-state strategic action. As one example, a memorandum of understanding was worked between the Florida National Guard, National Guard Bureau and other states to facilitate the use of other state National Guard security forces to provide “on-the-street” security within Florida if the need arose. This would have been the first time that National Guard from another state performed armed security missions within the state of Florida.

The Florida Comprehensive Emergency Management Plan (CEMP) is the formalized framework structure for coordination. The CEMP is nested in the National Response Plan (now National Response Framework). Within the Florida National Guard is the Joint Operations Plan—Defense Support to Civil Authorities/Homeland Defense (JOPLAN-DSCA/HD) that is also nested and provides a conceptual framework for collaborative efforts to meet common goals and mission sets. The JOPLAN-DSCA/HD became a critical element as the Florida Air National Guard units, for the first time in Florida State Active Duty missions, were mobilized for the season of storms and their integration became another interorganizational collaborative capacity-building exercise.

2.) Formalized Processes. Interestingly, the report discusses that success was enabled by moving away from the established formalized structure for mission validation to a decentralized and previously unutilized mission validation process

during the first 72 hours. Decision makers made a conscious decision to adapt the formalized structure to facilitate increased speed and enhanced positive relationships with supported civil authorities.

3.) Sufficient Authority of Participants. The report discussed the importance of the State Coordinating Officer providing authority to agencies to be proactive in the prepositioning of resources, requesting additional needed resources through EMAC and rightsizing resources to meet mission requirements. Providing authority for collaborative efforts was key to successfully maintaining the correct operational tempo in a highly dynamic and quickly evolving environment.

4.) Role Clarity. Role clarity was discussed as a success factor in that potential EMAC assets capabilities were listed, as opposed to just listing what type of unit they were. Decision makers required a capability set in order to make informed decisions when matching mission requirements with capabilities.

5.) Dedicated Assets for Collaboration. The use of liaison personnel is emphasized as a key to success in joint and civil-military operations in the report. As an example, military support liaison officers were assigned to each county level receiving support. The report emphasized an understanding of who the liaisons work for, and their understanding of the capabilities of the agency they represent. A new procedure was effectively implemented by the State Emergency Response Team where a Forward SERT was established at major impacted locations to synchronize collaborative efforts and to enhance response timeliness; this was emphasized as a key to success in that missions could be validated and tasked much more expediently. A National Guard Bureau liaison attached to the state was also emphasized as key to EMAC success.

b. Barrier Factors

1.) Impeding Rules or Policies. The report discussed the importance of synchronizing Department of Defense Northern Command chain of command structure with that of the National Guard. The practice of having one military chain of command structure known as Title 10/Title 32 “dual-hatting” was still in a developmental stage during this period and established procedures for training requirements had not been effectively set into policy.

2.) Inadequate Authority of Participants. Discussion in the report concerned the legitimacy of militia groups volunteering for duty and how their participation raised security, legal and safety concerns.

3.) Inadequate Resources. Nothing of significance was noted in the report.

4.) Lack of Accountability. Nothing of significance was noted in the report.

5.) Lack of Formal Roles or Procedures for Collaboration. Nothing of significance was noted in the report.

4. Lateral Mechanisms Domain

a. Success Factors

1.) Social Capital. Social capital appeared to be a major theme throughout the report. Examples include the discussion of trust between the Governor, the State Coordinating Officer, the Adjutant General of Florida and other key leaders. The trust between these key leaders was repeatedly mentioned as a success enabler that facilitated a more rapid decision-making process.

2.) Effective Communication and Information Exchange. The report discussed that communication and information exchange was enhanced by reducing line of communication distances. Senior leaders deployed closer to the area of operations and formed Forward State Emergency Response Teams to enable faster decision making. The use of liaisons at every level of operations also enhanced effective communication and information exchange.

3.) Technical Interoperability. Technical interoperability is discussed in the report as both a success factor and a liability factor. New equipment installed in the Joint Emergency Operations Center enhanced interoperability. EMAC assets received from other states enhanced interoperability. Continued development of communication and other technical assets to enhance interoperability was recommended as expectations of interoperability continued to increase.

4.) Combined Training Events: The report did not specifically discuss past training events as a key to success. However, the report did mention the experience of key leaders and formed partnerships as a success factor. Much of this experience and the partnerships that had been developed were at least partly a result of past combined training events such as annual statewide hurricane exercises, the governor's annual hurricane conference, RECON training, State Emergency Operations Center exercises and other exercises.

b. Barrier Factors

1.) Lack of Familiarity with Other Organizations. Nothing of significance was noted in the report.

2.) Inadequate Communication and Information Sharing. Nothing of significance was noted in the report.

5. Incentives Domain

a. Success Factors

1.) Collaboration as a Prerequisite for Funding or Resources. The design of the mission validation system employed facilitates that collaboration is required for the release of resources. Division of Emergency Management officials at the State Emergency Operations Center or at a Forward SERT serve as a mission validation approval center to release resources. Hence, no single agency can effectively employ resources without collaboration being conducted to validate mission requests. Likewise, resource allocation is managed through a similar process.

b. Barrier Factors

1.) Competition for Resources. Nothing of significance was noted in the report.

2.) Territoriality. Nothing of significance was noted in the report.

3.) Organizational Level Distrust and Lack of Mutual Respect. Nothing of significance was noted in the report.

6. People Practices Domain

a. Success Factors

1.) Respect for Other Parties' Interests, Expertise, Roles, and Perspectives. Repeatedly the report discusses the importance of other agency leaders' trust, expertise and support for collaborative efforts. The experience level of senior leaders was consistently discussed, as well as how each agency had a supportive perspective for the needs of collaborating agencies.

2.) Perseverance/Commitment. Attitude and morale of the participating personnel is stressed in the report as a key to success. This is especially noteworthy when considering that more than half of participating personnel had returned from federal mobilizations and deployments within the past few months before being called to State Active Duty in support of defense support to civil authorities. In addition, many participating personnel were also dealing with extensive damage to their own properties while supporting hurricane response efforts. The report also stresses the perseverance and resiliency of the impacted citizens as a key to success.

b. Barrier Factors

1.) Lack of Competency. Nothing of significance was noted in the report.

2.) Arrogance, Hospitality, Animosity. Nothing of significance was noted in the report.

Table 7. List of Collaborative Success Factors Noted in Summer of Storms 2004 Report

Domains	Success Factors	Summer Storms 2004
Purpose	Felt Need to Collaborate	+
	Common Goal	+
	Willingness to Address Other Agencies Interests or Cross-Agency Goals versus Local Organizational Goals	+
Structure	Formalized Structure for Coordination	+

Domains	Success Factors	Summer Storms 2004
	Formalized Processes	+
	Sufficient Authority of Participants	+
	Role Clarity	+
	Dedicated Assets for Collaboration	+
Lateral Mechanisms	Social Capital	+
	Effective Communication and Information Exchange	+
	Technical Interoperability	+
	Combined Training Events	+
Incentives	Collaboration as a Prerequisite for Funding or Resources	+
People Practices	Respect for Other Parties' Interests, Expertise, Roles, Perspectives	+
	Perseverance/Commitment	+

Table 8. List of Collaborative Barrier Factors Noted in Summer of Storms 2004 Report

Domains	Barrier Factors	Summer Storms 2004
Purpose	Divergent Goals	+
	Focus on Regional or Local Agency Concerns	
	Lack of Goal Clarity	
	Not Adaptable to Interests of Other Organization	
Structure	Impeding Rules or Policies	+
	Inadequate Authority of Participants	+
	Inadequate Resources	
	Lack of Accountability	
	Lack of Formal Roles or Procedures for Collaborating	
Lateral Mechanisms	Lack of Familiarity with Other Organizations	
	Inadequate Communication and Information Sharing	
Incentives	Competition for Resources	
	Territoriality	
	Organization-Level Distrust and Lack of Mutual Respect	

Domains	Barrier Factors	Summer Storms 2004
People Practices	Lack of Competency	
	Arrogance, Hostility, Animosity	

7. Other Factors

1.) Leadership. The report noted that the leadership within Florida was highly experienced with emergency management by the time of the 2004 season of storms. Governor Bush had been in office for his first term and had already led the state through several crises to include wildfires, the 9-11 attacks, with subsequent Florida National Guard mobilizations and deployments, and previous hurricane seasons, albeit not of the same magnitude as the 2004 season. W. Craig Fugate had been the Director for the Division of Emergency Management for several years and was likewise highly experienced. Leaders of other state agencies, such as the Florida National Guard and the Florida Department of Law Enforcement, were also all seasoned veterans of crisis situations. Perhaps more significant was that these and others experienced the meta-leadership that they portrayed by actively pursuing relationships with other agency leaders and working together closely.

8. Conclusion

Table 1 and Table 2 indicate that the Florida CDM enterprise's collaborative capacity had reached a state of full maturity in 2004. Collaborative processes implemented stemming from lessons learned from Hurricane Andrew in 1992 combined with lessons learned from 12 years of emergencies, to include tornados, El Nino floods, previous hurricane seasons, several wildfire seasons and response to the 9-11 attacks had honed the state's ability to respond to catastrophic events. In addition, the state had conducted numerous combined training exercises that developed enhanced trust and interoperability between participating agencies. The emergency support functions had developed into a more robust framework and the SERT had collectively grown more accustomed to collaboration between agencies. The collaborative process had become

normalized as a means of state response. Social capital was extensive as the team had confidence in themselves and their competence. Respect continued to be enhanced through success.

VI. FINDINGS AND RECOMMENDATIONS

A. FINDINGS INTRODUCTION

This chapter begins by discussing how topics identified in the literature review are related to and integrated with findings from my qualitative analysis of the three Florida events. Section B, titled “Insights from the Literature Review” examines each ICC domain’s relationships in the context of known theories and concepts. Section C, titled “Noted patterns of ICC in the Florida CDM Enterprise” discusses noted patterns specific to Florida’s building of ICC. Section D, titled “Discussion and Examples of Noted Patterns” discusses the noted patterns with specific examples provided to illustrate these patterns and provides discussion of their significance. Section E, titled “Recommendations” provides specific recommended actions developed as a result of this research and analysis effort.

B. INSIGHTS FROM THE LITERATURE REVIEW

This section examines general conclusions reached for each ICC domain of purpose, structure, lateral mechanisms, incentives and people practices. These conclusions discuss the connection between many of the conceptual frameworks discussed in my literature review within the context of each ICC domains.

1. Purpose

The felt need to collaborate is influenced by Foster-Fishman’s et al. primary area of member capacity, described by attitudes, motivations and access. A felt need to collaborate is dependent on both individual and organizational attitudes and motivations and the ability to access other organizational structures. The second primary area of relationship capacity also plays a role in the felt need to collaborate—the ability to form strong interorganizational relationships. The third primary area of organizational capacity also plays a role in the areas of strategic leadership and structural frameworks with clarification of roles and conflict resolution. Senge’s second core discipline of mental models, as well as Schein’s cognitive redefinition, influence the felt need to

collaborate in that collaboration efforts can be cognitively redefined to demonstrate collaboration as a positive endeavor, as opposed to working independently. Senge's third core discipline of systems thinking can serve as an enabler for the felt need to collaborate by acknowledging that interorganizational collaboration is a complex adaptive system and that no one agency has all the answers in a shared problem space. Senge's fourth core discipline of building a shared vision influences the building of ICC; leaders and change agents can influence the felt need to collaborate by setting the need to collaborate as a shared interorganizational vision for the interagency team. Senge's creative tension is critical to the recognition of the space between the current reality and where the interorganizational's vision is established in regards to the need to collaborate. One component—defining the current reality—serves little purpose without also establishing a vision of where the team wants to go in the future. The reverse paradigm, establishing a vision without acknowledging the current reality, is likely to fail. Organizational friction may be a restraining factor for establishing a felt need to collaborate in that leaders spend an inordinate amount of time and energy working to alleviate friction points and not working to solve core problems in the complex system. Imagine the likely low returns of success if an interagency effort addresses only organizational friction caused by unclear information during an event, as an example of how organizational friction may serve as a barrier to addressing the overall core system's problems.

Having common goals is similar to felt need to collaborate. Foster-Fishman's three areas of member capacity, relationship capacity and organizational capacity all influence having common goals in that attitudes, motivations, the ability to form strong relationships, leadership influence, conflict resolution and developing structural frameworks strengthen or diminish the establishment of common goals in an interagency setting. Senge's second core discipline of mental models and fourth core discipline of building a shared vision heavily influence the interagency efforts to establish common goals.

Willingness to address other agencies' interests or cross-agency goals versus local organizational goals and formalized structure for coordination are again influenced by all three of Foster-Fishman's primary areas of member capacity, relationship capacity and

organizational capacity. Senge's core discipline of mental models and systems deeply influence the ability of individuals and organizations to enter into new paradigms of thinking how interorganizational coordination structures and frameworks should be developed and institutionalized for building collaborative capacity. Primary to this effort is cognitive redefining of what success looks like—is success measured by what a single organization or stakeholder is able to accomplish individually or is it measured by what the system as a whole accomplishes in the pursuit of a collective and collaborative effort?

2. Structure

Structure is heavily influenced by organizational capacity in that leaders transform individual interests into a dynamic collective force, establish formalized procedures that clarify staff and member roles and provide clear guidelines for decision making, establish methods to deal with conflict resolution, develop functional internal communication systems that promote information sharing and problem discussion and resolution, provide human and financial resources and a continuous learning organization to consistently seek and respond to feedback. The establishment of structure serves to reduce organizational friction in an interagency collaborative effort and diminishes the potential for conflict by setting clear roles and expectations. Senge's third core discipline of systems thinking is centric to success in this area; participants become more cognizant that their actions have consequences for other components—other agencies and stakeholders—in the complex interdependent system. Structure is heavily dependent on strategic leadership; leaders provide authority for actions and decision-making, resources to facilitate success and establish clear roles for participants to enable decentralized decision making and develop participant's capabilities. These factors are all especially critical in an interagency collaborative effort as participants may enter into new relationships with a lack of clarity for their roles and decision-making authority.

3. Lateral Mechanisms

The Lateral Mechanisms domain within the building of ICC is influenced by members' core skills, internal and external relationships and organizational capacity to share information. Technical interoperability and combined training exercises are

heavily dependent on organizational capacity in the category of strategic leadership and providing resources for organizational efficiency. Feedback loops are especially critical for organizations to grow in the area of organizational capacity. All five of Senge's core disciplines influence this domain. Personal mastery of core skills for independent lifelong learning strengthens the system's capacity for team learning. Goldratt's Theory of Constraints, which highlights that the weakest link in a chain impedes the entire system, is relevant, in this domain, in that success and barrier factors, such as technical interoperability and combined training exercises illustrate that a weak link hinders the effectiveness of the entire system. Senge's second core discipline of mental models is relevant in that effective information sharing is dependent on how we view this cognitive ability. Senge's third core discipline of a systems approach to organizational learning is relevant in ICC factors such as information sharing and combined training exercises. His fourth discipline of building a shared vision influences the ICC factors—an example is in the factor of combined training exercises. Exercises that only place agencies in a collaborative environment serve limited purpose if there is no shared vision for what the exercises are intended to actually accomplish. Senge's fifth core discipline of team learning is especially influential in this ICC domain. Combined training exercises, as an example, should seek to build a team learning environment as opposed to the exercise serving to only teach one component agency or section lessons, while other components serve only as facilitators. Senge envisioned team learning as the pinnacle to strive for where teams seek to approach learning as a continuous cycle of generative knowledge building. The feedback cycle is a central tenet to this approach in that the focus is on the process as opposed to a final destination.

4. Incentives

The incentive domain of building ICC is influenced by Foster-Fishman's areas of organizational capacity. Strategic leadership is especially influential in this domain. Leaders create the environment where collaboration is rewarded through incentives such as resources. Senge's mental models and systems approach influences this domain by

restructuring the ways that organizations view collaborative efforts and by treating the entire system as a problem space to utilize collaboration as a means to solve problems and make decisions.

5. People Practices

The People Practices of building ICC is dependent upon Foster-Fishman's relationship capacity, both internal and external. Relationships facilitate interorganizational collaborative capacity by developing an environment for collaboration based on mutual respect and tolerance. Senge's core disciplines of personal mastery effect this ICC domain; people who are focused on developing their own learning, as a lifelong goal, recognize their own shortcomings and approach relationships with others with empathy and respect toward the other people and organizations, with a sense of striving to build collective learning. Senge viewed personal mastery as a prerequisite for team learning to develop and flourish. Personal mastery and team learning act as a hedge against organizational friction by maintaining a goal of continuous improvement based on reducing the creative tension gap between our current reality and our vision of where we want to be in the future. The goal of closing this creative tension gap reduces organizational friction by better preparing participants for the unforeseen circumstances and events that can hinder organizational efficiency. Since the very nature of emergency management and domestic security is preparing for an unforeseen future, this approach is paramount for success within the shared problem space.

As we have discussed, Goldratt's Theory of Constraints examines how a chain is only as strong as its weakest link. Hence, TOC can be viewed in the context of this research project as a potential restraining force—or barrier factor for building ICC—that should be considered for possible impediment of building ICC. If we consider TOC as a potential force that can harm networks of collaboration, then a clear implication for leaders and change agents is to focus change efforts on strengthening these forces of concern. An example might be in the ICC factor of impeding policies. Success factors for building ICC may be strong but the barrier factor of impeding policies may be such a deterrent to success that it overshadows success factors. This could be a weak link in the

system as viewed by Goldratt's TOC and would hinder the entire systems potential for building collaborative capacity. Leaders considering TOC in their use of Lewin's Force Field Analysis may be well served to not view all restraining factors as of equal importance.

Organizational friction has been discussed as unforeseen events that cause leaders to devote significant time and resources toward decision making in an uncertain environment. Complex adaptive systems have a high likelihood of being impacted by the forces of organizational friction and there may be little that can be done to eliminate these forces. However, developing mental models that view these frictions as challenges to be overcome in a systems and team learning approach can change the way organizations view these circumstances as they develop. Information in the comprehensive disaster management environment is a precious, and not always present, commodity available to leaders and participants, but developing systems that facilitate ICC success factors can do much to mitigate the ill effects of organizational friction. Establishing an environment of mutual trust and respect establishes a generative learning environment that views organizational friction and the fog of homeland security as unintended consequences of the changing environment, and seeks to adapt the systems to meet this changing environment without attempting to place organizational or individual blame, will succeed where others may fail. General George Marshall, viewed by many as the central architect for the Allied Forces' success in World War II, stated, "fix the problem and not the blame." This is not to say that personal accountability should not be an organizational goal, but organizational friction does suggest that often forces beyond any individual's or organization's control create unintended consequences that impact success, especially in a highly dynamic and changing environment such as disaster management.

C. NOTED PATTERNS OF ICC IN THE FLORIDA CDM ENTERPRISE

This section of the chapter identifies patterns that are of significance in the development of collaborative capacity for the Florida Comprehensive Disaster Management Enterprise, provides specific examples, and explains why these patterns are significant.

1. ICC Success Factors Increased over the 12-Year Period

The first major pattern that is worthy of note is that the indication of success factors for interorganizational collaborative capacity increased over the period of 12 years that was analyzed; there were nine success factors noted for Hurricane Andrew in 1992, nine success factors for Firestorm 1998 and 15 for Season of Storms 2004. The reasons for the Hurricane Andrew success factors and the Firestorm 1998 being the same number and then an increase in the number of success factors in 2004 are not immediately clear, but the following possible reasons are provided for consideration. Many of the success factors were instituted by the state in strategic initiatives that involved legislative efforts that took a period of several years to actually implement and normalize. As one example, funding resources for emergency management were instituted, but it took several years to fully realize the benefits. EMAC strategies were also initiated, but took a period of years to fully set into place and the benefits to become apparent. Training exercises were also increased, but the benefits of interagency training may not have been immediately apparent within the first few years. Of significance is that the firestorms were also an emergency management event that was not faced on a large state scale until the 1998 fire season, while hurricanes and other weather events happened on a more frequent occurrence during the period. Technology is another area where the desire was present but the means were not fully available, Communication interoperability is a striking example where it was recognized that a requirement was present but the actual systems to meet the requirement were still in developmental stages. It is a matter of subjective hypothesis, but it is also possible that setting into place strategic initiatives for strengthening collaborative capacity, in itself, does not mean that increased collaborative capacity will occur in a period of even a few years, and may take a longer period of years to fully mature, as a result of increased social capital and other factors that mature over time. If this hypothesis is accurate, it has profound significance for United States homeland security efforts as we have just now just reached the tenth anniversary of the 9-11 attacks on America.



Figure 4. Increase of Florida CDM Enterprise ICC Success Factors 1992–2004

2. ICC Barrier Factors Decreased over the 12-Year Period

The second noted pattern of significance is the reduction of barrier factors during the 12-year period of analysis—ten barrier factors were noted in the Hurricane Andrew period, eight barrier factors in the Wildfires 1998 period and three in the Summer of Storms 2004 period. A hypothesis might be made that the elimination of barrier factors requires fewer resources to implement than the initiation of success factors. Many of the restraining factors suggest elimination of existing barriers, such as impeding rules or policies or territoriality as opposed to adding new systems. If this hypothesis is accurate, this is significant and good news as America faces economic challenges and diminishing resources; reduced resources does not, by itself, mean that building collaborative capacity in interorganizational efforts is not possible, albeit to a lesser degree, should resources be made available for building collaborative capacity.



Figure 5. Decrease Of Florida CDM Enterprise ICC Barrier Factors 1992–2004

3. Florida Leaders Capitalized on Lessons Learned From Each Event

The third noted pattern of significance is that Florida leaders capitalized on lessons learned from each event, which in itself is indicative of the importance of capturing lessons learned and using them to leverage success factors and eliminate or reduce barrier factors. It can be argued that the ICC domain framework used in this project is an effective means of analyzing lessons learned for future events. An action research question asked by Hocevar, Thomas and Jansen⁵⁸ is how can leaders use (ICC) survey results to assess interorganizational collaborative capacity? The methodology used in this project may be one example of the use of the already established ICC success and barrier factors developed by Hocevar, Thomas and Jansen. Many after-action reports and lessons learned are currently developed at the single agency level, while the actual events they assess are interorganizational collaborative efforts in nature. By utilizing ICC domains as a framework for assessing interorganizational success and weaknesses during after-action reviews and lessons learned summits, leaders and change agents can capitalize on lessons learned using a complex systems approach as opposed to only reviewing individual components (single agencies) efforts.

⁵⁸Hocevar, Susan, *Interorganizational Collaborative Capacity: A Conceptual Model and Measurement Tool*, February 24, 2010, <https://www.chds.us/?file&mode=dl&f=resources/uapi/summit10/Track2/Hocevar-Interorganizational-Collaborative-Capacity-02-031510-01.pdf> (accessed August 21, 2011).

4. ICC Success and Barrier Factors Are Often Both Present During Different Stages of Events

The fourth noted pattern in this analysis is that often success and barrier factors that have linkage are both present. Readers may have already noted that sometimes this occurred in this analysis. This could be the result of time periods during an event—a barrier may have been present early on during an event and leaders noted the barrier and took corrective actions to eliminate or reduce it, which caused it to become a success factor later in the same event. Examples may include information sharing or communication, technical interoperability or available resources. This dynamic suggests another use of the developed ICC domains—use during an event as a measurement tool. By using the ICC success and barrier factors as a checklist to assess ongoing operations, leaders can assess how their interorganizational collaborative efforts are working prior to the conclusion of the event. Assignment of quality control personnel to assess ICC during an event may help leverage and expedite the building of ICC for interorganizational success.

In addition to the time dynamic, the presence of both correlating success and barrier factors during the same event could be the result of different agencies having differing levels of ICC as a result of procedures and structures. One agency may be experiencing success in an area while another agency may have barriers impeding success. By using the ICC domains as a method of benchmarking smart practices in ICC development, leaders and change agents may be able to enhance overall ICC systems success. Use of the ICC domains could be leveraged as incentives to assess individual agencies and provide cross-agency information sharing of ICC success factors.

5. There is a Correlation Between Perceived Success of the Florida CDM Enterprise During the 12-Year Period with the ICC Model of Success and Barrier Factors

The fifth noted pattern in this analysis is that the Florida CDM enterprise perceived success over the period of analysis correlates to the ICC model of success and barrier factors. Florida CDM efforts were viewed as unremarkable, even by many of the participants during Hurricane Andrew response efforts, and were viewed as successful

during the Season of Storms 2004. This strongly suggests that the building of ICC during the 12 years between these two events was, at least partly, an enabler for overall success of the Florida CDM efforts.

6. Participants in Florida CDM Efforts During the 12 Years of Analysis May Not Have Been Cognizant of the Importance of the Building of ICC as a Success Enabler for Change Efforts

The sixth noted pattern in this analysis is that the actual participants in the Florida CDM efforts were perhaps not cognizant of the importance of building the ICC as a success enabler for their own change efforts. Throughout all three reports, use of the term “collaborative capacity” was absent in the narratives. Some of the language and many of the actions taken strongly suggest that there was an intuitive search for enhanced interagency cooperation, which is indicative of the emotional intelligence of the participants, in that they were able to ascertain what would strengthen their individual agency efforts was to cooperate with other agencies. The implication is that by being cognizant of the building of ICC as a success enabler, future leaders and change agents can further facilitate overall system successes by undertaking more deliberate design strategies, using ICC domains as a systems design parameter.

7. Perceived Problems Later Became Success Enablers

The seventh pattern noted is that often, what appears to be a problem when it first occurs can later become a success enabler. We have already discussed how the aftermath of Hurricane Andrew served as a wake-up call to galvanize Florida’s leaders to develop a new model of emergency management. Likewise, we have discussed that the 9-11 attacks served as a catalyst for changes in the federal interorganizational collaborative environment.

8. Florida Adopted a Whole-of-Government Approach as a Means to Address A Complex Problem

The eighth noted pattern of significance in the Florida Disaster narrative is the whole-of-government approach taken by Florida. Partnerships between the government—whether local, state or federal—with public and private organizations is

essential in ensuring unity of effort for all phases of emergency management and domestic security. Implicit in this approach is the importance of information sharing and public information methodologies to assist in taking a team approach to emergency situations. It is possible that Florida planners understand this dynamic, partly as a result of the experiences of the state during World War II—the use of Civil Air Patrol and other volunteers was integral to the response in protecting the state’s vast coastline from German submarine attacks and the threat of spies landing on the Florida shoreline.

It is noted that Florida did not assess their own ICC, using survey tools prior to the period of analysis. This would have provided a starting point to ascertain the strength and weaknesses of ICC within the interagency domain prior to measurement after specific events. Others who intend to utilize ICC domains for assessing their own strengths and weaknesses would be well served to conduct surveys before events happen to determine a common operating picture.

9. Disasters and Emergencies Take Many Forms That Require Robust and Flexible Response Capabilities

The ninth noted pattern of significance is the many forms that disasters and emergencies can take and the need for a robust and flexible response capability. The Florida Comprehensive Disaster Management Enterprise has evolved tremendously over the years since Hurricane Andrew made landfall in South Florida in September 1992. Florida has provided an example of how many different forms emergencies can take—hurricanes, tropical storms, tornados, floods, wildfires, riots, evacuees from adjacent island nations, anthrax attacks, the Deepwater Horizon oil spill environmental disaster, support for the 2010 Haiti earthquake disaster and other lesser-known events are all woven into the Florida disaster narrative. Since 1994, the Florida State Emergency Response Team has been an integral component in preparation, response, recovery and mitigation efforts for these types of emergencies and has made tremendous progress in its capacity to provide emergency relief for the state. This project has made an attempt to demonstrate that a large portion of the reason for its success to date has been in the building of interorganizational collaborative capacity. The Florida SERT has been highly involved in the development of the EMAC concept to strengthen ICC between agencies

from different states. Florida SERT has also participated in international relief and training exercises with adjacent island nations in the Caribbean. This is significant in that Florida and the islands of the Caribbean share so many of the same threats—catastrophic storms and drug smuggling being two noteworthy examples.

10. Strategic Leadership Influenced ICC Domains

The tenth noted pattern of significance in this discussion is the role of leadership in building ICC. For almost all ICC success and barrier factors, leaders set the tone for ICC development within the ICC environment. Leaders provide the ICC domains of purpose, structure, lateral mechanisms and incentives, while serving as role models for people practices.

D. DISCUSSION AND EXAMPLES OF NOTED PATTERNS

This section discusses how the noted patterns may be inter-related in the context of building an interorganizational collaborative capacity within the state of Florida. I conclude with why the patterns and their relationships are significant in the narrative of building ICC within the Florida CDM enterprise.

1. ICC Success Factors Increased over the 12-Year Period

The first identified major pattern is important in that it supports the hypothesis that the increase of ICC success factors supports the building of ICC in a complex system. The following specific examples from the analysis are provided to demonstrate how the increase in these success factors may occur in a complex system.

Felt need to collaborate was noted as a success factor in all three examined Florida events: Hurricane Andrew 1992, Wildfires 1998 and Summer Storms 2004. The felt need to collaborate was initially established as a result of Hurricane's Andrew aftermath when leaders and participants recognized that a single agency approach did not work effectively in such a complex environment as a catastrophic event. This realization could arguably be viewed as the most dominant narrative in the Hurricane Andrew report, with statements such as the need for state agencies to work more closely with county and private organizations to develop a more comprehensive emergency management

framework for cooperation. Smallen and Leach⁵⁹ make the case that a felt need to collaborate is the most important precondition for the success of collaboration, and that the need may be driven simply by survival, such as was manifested in the animal kingdom. The negative media publicity received as a result of the perceived poor immediate response efforts, after the landfall of Hurricane Andrew in south Florida, may have served as a trigger to create a commonly felt need to collaborate within the Florida agencies. No single agency appeared to be blamed for the poor response efforts; the negative response was pointed towards the entire state government, which served to create a shared sense of mission failure. So how do we account for the continued felt need to collaborate during the wildfires of 1998 and the summer of storms in 2004? Smallen and Leach may provide an answer to this question when they state that the felt need to collaborate can be a human response to dealing with uncertainty, which is an almost constant presence in the field of emergency management and in complex adaptive systems.

Another example of success factors in the three analyzed Florida events is in the factor of social capital. This factor was not noted as present in the Hurricane Andrew report, but was noted as a success factor for wildfires 1998 and summer storms 2004. This factor's increase can be attributed to the building of relationships and trust over time. Social capital is increased as agencies succeed—and sometimes fail—together in both operations and exercises. Exercises play an integral role in providing a safe place for failure, with limited consequences for failure. Social capital is about the value of social networks and bonding similar people, as well as bridging between diverse people with norms of reciprocity. The establishment of the Florida State Emergency Response Team in 1994 and subsequent creation of SERT logos and uniforms, such as shirts, facilitated the building of social capital. People involved in the creation and development of the F-SERT built social capital as they worked closer together in training, operations and exercises. Simply knowing who to call when action was required developed social

⁵⁹ Smallen, David and Leach, Karen, "Making a Nicer Transition to the Millennium: Five Keys to Successful Collaboration," *Educom Review* 34, no. 4 (August 1999), <http://net.educause.edu/ir/library/html/erm/erm99/erm9945.html> (accessed November 14, 2011).

capital; senior leaders modeled behavior for their subordinates and reinforced norms and organizational culture to nurture the collaborative environment.

2. ICC Barrier Factors Decreased over the 12-Year Period

The second noted pattern of significance is a corresponding pattern to the first noted pattern of increased ICC success factors. Confidence builds as success factors become more prevalent, which facilitates the reduction of ICC barrier factors. Barrier factors are often rooted in the dynamics of intergroup behavior; Caruso, Rogers and Bazerman⁶⁰ note that three common barriers to collaboration are intergroup bias, group territoriality and poor negotiation norms.

An example of a barrier factor in the evolution of the Florida CDM Enterprise is in the factor of territoriality, which was noted as a barrier in the analysis of both the Hurricane Andrew 1992 report and the Wildfires 1998 report. Territoriality, as defined by Caruso, Rogers and Bazerman, is rooted in the concept of psychological ownership, whereas groups within organizational boundaries tend to establish territory for their own group's physical space, ideas, activities, roles, issues and information and tend to become possessive and form territorial attachments to such objects. This behavior stems from the need to respect and reaffirm the identity, efficiency and security of the group within the interorganizational effort. This concept could explain why territoriality appeared to be an area of concern within Florida CDM Enterprise efforts for early events such as Hurricane Andrew and Wildfires 1998. As an example of why this could be an area of concern, response to hurricanes, tornados and floods is commonly viewed as primarily a Florida Division of Emergency Management realm while wildfires is commonly viewed as a Florida Division of Forestry realm, and domestic security is commonly viewed as a Florida Department of Law Enforcement realm. Territoriality—whether in the physical space for incident commands or the roles and activities of these agencies—can easily become a barrier for interagency information sharing and communication. Storage of information and data is a classic example of how organizations tend to become territorial,

⁶⁰ Caruso, Heather, Rogers, Todd and Bazerman, Max H., Boundaries Need Not be Barriers: Leading Collaboration Among Groups in Decentralized Operations, Harvard Business School, 2008, <http://www.hbs.edu/research/pdf/07-090.pdf> (accessed November 14, 2011).

often without being cognizant of it themselves. Groups may not even make attempts to access other available interagency information and may use markings, such as organizational logos or letterheads to establish territory.

3. Florida Leaders Capitalized on Lessons Learned From Each Event

The third noted pattern of significance is important in that learning organizations seek continual improvement and establish feedback loops. We have discussed creative tension as the space between current reality and the vision for the future. Use of after-action reviews and the capture of lessons learned are indicative of a learning organization that seeks lifelong learning and continuous improvement. Learning organizations never stop reinventing themselves with cyclic information patterns that continually improve the process. The United States Army Field Manual on Leadership notes that “leaders who learn look at the experience and find better ways of doing things. It takes courage to create a learning environment. Leaders dedicated to a learning environment cannot be afraid to challenge how they and their organization operate. When leaders question why do we do it this way and find out the only reason is, because we’ve always done it that way, it is time for a closer look at this process.”⁶¹ Donahue and Tuohy⁶² note that emergency responders use various mechanisms of sharing performance information in order to prevent the recurrence of adverse events and actions and to better contend with situations and problems that are likely to arise again. They also note that the U.S. Army’s After-Action Review (AAR), a comprehensive reflective learning process developed in the 1970s, is one of the most widely used methods. These researchers point out that, unfortunately, lessons are not always learned, and experience suggests that many problems and mistakes are repeated in subsequent events. The Florida CDM experience in the building of ICC suggests that this was not typically the case as the ICC success factors increased over the 12-year period analyzed, while the ICC barrier factors decreased.

⁶¹ Schoomaker, Peter J., *Field Manual 6-22 Army Leadership: Competent, Confident, and Agile*, Carlisle, PA: United States Army, 2006), 8-2 and 8-3.

⁶² Donoghue and Tuohy, “Lessons We Don’t Learn.”

4. ICC Success and Barrier Factors Are Often Both Present During Different Stages of Events

The fourth noted pattern in this analysis is indicative of Lewin's work in Force Field Analysis. Lewin believed that the field of forces—what he described as life space—driving individuals or groups of individuals towards a goal, or hindering their progress toward a goal, was constantly changing based on time and experience. What may be a success factor during one stage of an event may become a barrier later in the event, or vice versa, depending on changing constructs in the minds of participants. These mental constructs, when fully constructed, serve as a constellation of motives, ideals, values, anxieties, needs and moods. Lewin proposed that people make sense of their complex world—physical, mental and social—through continuous interaction between memories, desires, goals and their environment. Within a complex adaptive system, such as the Florida CDM Enterprise, organizations and individuals bring a wide range of these driving and restraining forces, based on organizational motives, ideals, values anxieties, needs and moods. The forces involved are in a constant state of dynamic equilibrium; the individual parts influence the whole. Leaders are well served to recognize that the forces involved shift based on time and experience. As different stages of an event unfold, the success and barrier factors evolve based on circumstances. Communication between leaders and participants, during stages of events, may serve to sustain success factors and alleviate barrier factors. Leaders can help participants to continue forming mental constructs that place events into perspective.

An example in the analysis of the three Florida reports, where both success and barrier factors are present, is in the domain of structure. Instances of both adequate and inadequate authorities were noted in the Summer of Storms report. This, at first glance may appear inconsistent, but not if viewed in the time and experience context previously mentioned. Authorities between Florida participants as well as between Florida and other states appeared adequate. Federal and state authorities specifically between Florida and the Department of Defense Northern Command (NORTHCOM) appeared at times to be confusing but have since been addressed through the practice of Dual Status Command. The mental construct of the Florida SERT, at the time, was that they had developed a

framework that had been successful for previous emergency events and neither the formal structures nor informal mental constructs of adding a new stakeholder into the existing command structure had yet been fully developed. Another example of both success and barrier factors being present was in the domain of purpose; both the success factor of willingness to address other agencies interests or cross-agency goals, versus local organizations goals and the barrier factor of focus on regional or local agency concerns, were noted in both the Hurricane Andrew and Wildfires 1998 reports. In this circumstance, the experience and mental constructs of the Florida emergency management participants influenced the outcome. While a felt need to collaborate influenced the success factor, the Florida Emergency Management paradigm, of focusing response efforts at the county level, created this mental model in the minds of participants. Which stage of the emergency management cycle was being implemented influenced the success and barrier factors present. During response efforts, a focus on local organizations goals was viewed by state participants as a healthy mental construct that followed the existing paradigm and was in line with the statutes governing Florida emergency management.

5. There is a Correlation Between Perceived Success of the Florida CDM Enterprise During the 12-Year Period with the ICC Model of Success and Barrier Factors

The fifth noted pattern in this analysis suggests that ICC is an integral component for successful comprehensive disaster management efforts. We have already noted how many emergency management professionals viewed Florida's emergency management efforts in the 2004/2005 hurricane season as a model of leadership in the field. One has to wonder if that view could have been established had the building of ICC not happened during the same period. The building of ICC may not have been the only reason for Florida's perceived success, but the findings of this research effort suggest that it contributed to success. An example of how collaboration efforts contributed to the success of Florida's CDM Enterprise is found in the book *Megacommunities*⁶³ when discussing Florida's change effort following the impact of Hurricane Andrew. The

⁶³ Gerencser et al., *Megacommunities*.

author states that it was now clear to Florida's leaders that no government agency could manage this type of large-scale catastrophe on its own, so Florida moved to a new approach, deliberately involving a variety of organizations—public sector, corporate, non-governmental and faith-based in its emergency planning and activities. This meant changing both the planning process and the relationships among these various groups.

6. Participants in Florida CDM Efforts During the 12 Years of Analysis May Not Have Been Cognizant of the Importance of the Building of ICC as a Success Enabler for Change Efforts

The sixth noted pattern in this analysis is indicative of the relative new paradigm of interorganizational collaborative capacity. While the term “collaboration,” itself, has been present for many years, the recognition of the importance of an overall systems approach in the building of ICC is a relatively recent phenomenon. The Naval Postgraduate School ICC Research Project commenced in 2002 and the 9-11 attacks on the United States served as a catalyst for wider recognition that a new model for interagency cooperation was needed, particularly in the area of communication and information sharing. Entrenched paradigms of stove-piping information was perceived by many in the United States as a reason for lack of adequately anticipating the 9-11 attacks and new models of interorganizational effectiveness were aggressively pursued. Florida leaders obviously recognized the need for more collaborative efforts after the Hurricane Andrew event, but did not have the benefit of an ICC model to use for reframing the structure and mental constructs. It is a testimony to their resourcefulness and ingenuity in developing a successful interagency framework that was, in actuality, years ahead of its time.

7. Perceived Problems Later Became Success Enablers

The seventh pattern noted is related to mental constructs and how leaders frame shared problems. An example noted in a 1997 case study of Florida emergency management examined during this research effort is that the unexpected Florida winter storm of 1993 provided a catalyst for strengthening the felt need to collaborate within Florida. The vast area of Florida impacted within the North and Central Florida area of the state demonstrated to legislators and the public that the entire state was vulnerable to

storms of this nature, and provided a felt need to provide resources for emergency management within the state. Yet, this catalyst for change is not noted in any of the examined reports and is seldom discussed within the Florida CDM Enterprise storyline. This potential for unforeseen events is relevant in the American homeland security enterprise of the 21st century. Although specific areas may be more likely to experience certain events—acts of terrorism or earthquakes as examples—it doesn’t mean that the events may not also occur in less likely areas. Leaders and change agents provide meaning and context to events as they unfold and set the tone for how circumstances are viewed within the collaborative environment. Recall from our literature review how Boal and Schultz⁶⁴ argue that strategic leaders play a crucial role in moving organizations to an environment of organizational learning and adaption by storytelling and dialogue, which shape the interactions and construct the shared meanings that provide the rationale by which the past, the present and the future of the organization come together. Leaders, such as former Governor Bush, have developed this storyline within Florida by discussing publicly how Hurricane Andrew served as a wake-up call to Floridians and caused a change in thinking on how to respond to such catastrophic events. Another example of this pattern in the Florida CDM narrative is how the widespread devastation of the 1998 Wildfires caused Florida leaders to consider how to manage such widespread devastation across the entire state, practices set into place for this and subsequent wildfire events served to help manage statewide devastation during the Summer of Storms in 2004, when all 67 state counties were impacted enough to receive disaster declarations.

8. Florida Adopted a Whole of Government Approach as a Means to Address a Complex Problem

The eighth noted pattern of significance is related to the felt need to collaborate, likely triggered by a sense of, “We’re all in this together.” The devastation caused by Hurricane Andrew had never been viewed before on television, and Florida, as a whole received negative media reporting, much as Louisiana would experience in 2005 following Hurricane Katrina. The whole-of-government approach to emergency

⁶⁴ Boal. and Schultz, “Storytelling, Time, and Evolution,” 411–418.

management, used by Florida, featured horizontal and vertical collaboration between agencies and provided citizens with one-stop shopping for accessing information and contact information. A single State Coordinating Officer reporting directly to the Governor, with the authority to task and commit all state resources, is centric to this approach, and having a central hub for website access and communication is also invaluable in support of this approach within the Florida CDM environment. A whole-of-government approach is noteworthy in the Florida ICC experience with alleviating impeding policies and procedures, such as the example of developing means to address wildfire fuel issues, in the context of balancing the need to provide wildfire barrier areas while also balancing land management and environmental concerns. There are many other examples where the whole-of-government approach for comprehensive disaster management becomes a vital component for success. Security during catastrophic events is one such example where interorganizational collaboration becomes critical. A large portion of security forces are provided by the Florida National Guard, but they operate under the legal umbrella of state police agencies, such as the Florida Department of Law Enforcement or Florida Highway Patrol. The Florida Department of Transportation becomes vital for roadway access issues, the Florida Wildlife Commission has a role in maritime security, and other agencies may provide support in various circumstances. Clearly, no individual agency can provide security during a catastrophic event without collaborating with other agencies in a whole-of-government approach.

9. Disasters and Emergencies Take Many Forms That Require Robust and Flexible Response Capabilities

The ninth noted pattern of significance relates primarily to the ICC domain of lateral mechanisms. Social capital provides organizations with the ability to make changes to existing structure, as needs dictate, which is paramount for successfully providing adequate response in fluid and dynamic environments. Technical interoperability provides a framework for communication and sharing of information, which facilitates incremental changes to keep up with changing circumstances. Trust between agencies in order to react rationally and calmly to changing developments during emergency situations. Examples during the Florida CDM Enterprise narrative include

how communication interoperability, based primarily on catastrophic storm impacts, also served to enhance interoperability during the Wildfires 1998 response. Social capital built as a result of years of hurricane exercises facilitated the response to flood responses prior to the 1998 wildfires. Combined training exercises conducted for RECON assets to conduct damage assessments and combined aviation exercises to practice wildfire suppression enabled the state, in 2010, to form an interagency task force of aviation RECON assets to assist in the Deepwater Horizon response.

10. Strategic Leadership Influenced ICC Domains

The tenth noted pattern of significance has many demonstrations in the Florida CDM Enterprise story. Florida has been fortunate with great leadership in many prominent positions to include Governors, Division of Emergency Management Directors and Adjutant Generals. These and other agency leaders promoted the interorganizational concepts and provided strategic leadership, which created an environment for building ICC within Florida's CDM Enterprise. No ICC success would have been possible in Florida without the support, vision and mega-leadership of these visionaries. A specific example is the creation of the Lewis Commission following Hurricane Andrew response, and the creation of hundreds of combined training exercises over the past 20 years. Governor Bush attending all of the Florida National Guard annual state conferences during his eight years as Florida Governor, and addressing the crowd of officers, is an example how leadership can strengthen ICC by building social capital. Leaders from the various Florida state agencies regularly attended combined training events and networked with other leaders, which sent clear signals for the expectation to collaborate throughout each organization. My own experiences in Florida emergency management efforts during the past 20 years lead me to state, without qualification, that Florida has been truly blessed with extraordinary leadership in emergency management, who envisioned Florida as a role model for emergency management and provided unprecedented support to develop collaborative capacity. The Florida CDM enterprise has provided a striking example to other interested agencies for the utilization of ICC domains, categorized by success and barrier factors, for the building of ICC. Figure 6 is a diagram depicting the major patterns noted during this discussion of research findings.

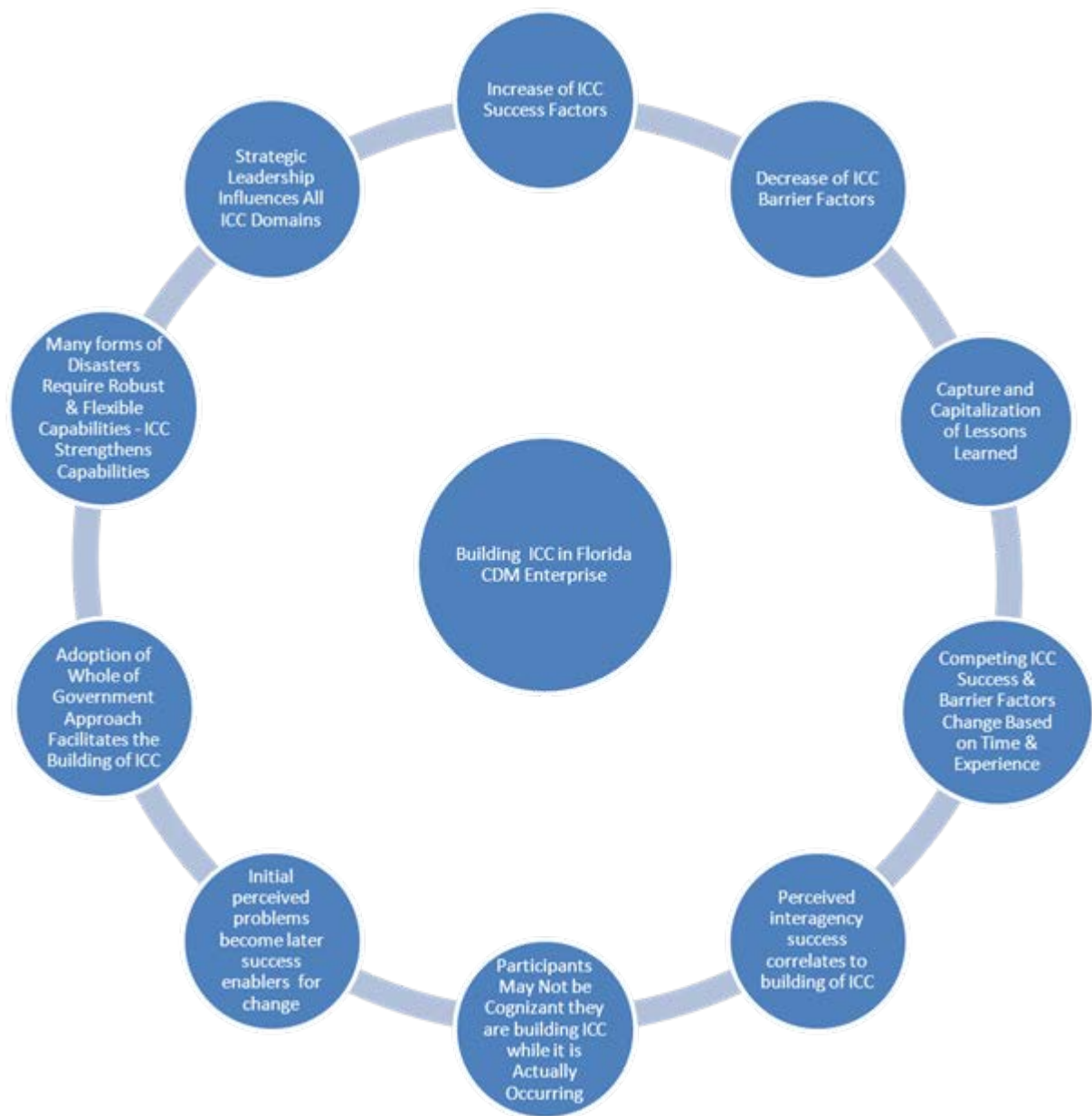


Figure 6. The Building Of Icc In The Florida Cdm Enterprise

E. RECOMMENDATIONS

This section provides recommendations for a path forward to utilize findings developed as a result of this research effort.

- 1. Conceptualize the Findings into a Briefing Format for Interested Stakeholders and Researchers**

We have discussed that communication and information sharing, both horizontally and vertically, is a driving force for building ICC. Sharing these concepts in an interagency setting assists in establishing norms and incentives for continued progress in this area. Much as we discussed how strategic leaders serve their organizations through storytelling and framing issues, sharing these results will act as a catalyst for developing vision for organizations, building renewed confidence for the participants of the actual events examined and developing expectations for new members.

- 2. Examine Other Events in the Florida CDM Enterprise History for Further Development of How the Building of ICC Influences the Success of the Interagency Environment**

Possible past events, such as Florida's contribution to the Hurricane Katrina response efforts in Mississippi and Louisiana, Florida's contribution to the Haiti earthquakes response in 2010 and Florida's contribution to the 2010 Deepwater Horizon oil platform crisis offer intriguing potential for examining how the building of ICC across state lines may have developed.

- 3. Examine New Emergency Events that Happen in the Future, Using ICC Domains as a Framework**

This may be accomplished in Florida or other settings. Efforts of this type may serve to continue to expand the body of knowledge for the building of ICC. Likewise, using survey instruments to measure ICC success and barrier factors would provide more detailed information that may be leveraged by Florida leaders and change agents.

- 4. Utilize the Findings of this Research in the Structuring of Future Combined Training Events**

If we accept the premise that the building of ICC served to strengthen the overall success of the Florida CDM Enterprise system, then it makes sense to further leverage these findings to develop frameworks for training and exercises that build upon the ICC success factors and mitigate the ICC barrier factors. Knowledge gained does little to

change or maintain desired actions and attitudes if not reinforced by institutionalizing and training the developed concepts at all levels of organizations.

5. Continue to Expand the Practice of Conducting After-Action Reviews, and the Capturing of Lessons Learned, Using the Concept of the Building of ICC as a Framework of Analysis

We have noted that much of the development of ICC within the Florida CDM Enterprise happened as a result of intuitive reasoning by leaders, change agents and participants. Using the ICC domains as a framework for closely examining events, after they occur, provides a method for a more systematic evaluation of a desired outcome for collaboration.

THIS PAGE INTENTIONALLY LEFT BLANK

VII. CONCLUSIONS

This research demonstrates how the building of Interorganizational Collaborative Capacity served as an enabler for effective change efforts in Florida and constructs a narrative describing smart practices that may be leveraged by other professionals to enhance their own interorganizational collaborative capacity and efficiency efforts.

Florida's success may be viewed as a role model for development of ICC in other interorganizational efforts. Florida leaders would likely be some of the first to point out that there have been setbacks along the journey. Often, we learn more from our failures than we do our successes, and Hurricane Andrew illustrates this paradigm well. As former Governor Bush once stated, Andrew was a wake-up call to all Floridians. Similarly 9-11 and Hurricane Katrina were wake-up calls for the United States.

A. THE END OF THE STORY OR THE BEGINNING?

This research effort has attempted to develop a storyline for the success of the Florida CDM Enterprise, from the period of initial change efforts as a result of Hurricane Andrew's devastation of south Florida in 1992, through the statewide devastation of the Summer of Storms in 2004. We have developed this storyline by using an existing framework for the building of Interorganizational Collaborative Capacity. Florida has already experienced a myriad of emergency events since the 2004 hurricane season environmental crisis. It is likely that more catastrophic events will continue to plague Florida in the years to come. It is imperative that such a populated state continue to prepare for catastrophic events before they happen. In a time of such economic malaise and budget constraints, it is likely that the resources available to Florida will be reduced, so creative and innovative means to develop increased capacities to collaborate become more necessary. The use of systematic ICC frameworks to strengthen an already robust collaborative capacity is warranted, as Florida prepares for events such as the 2012 Republican National Convention, to be conducted in Tampa during August 2012. It is hoped that this research effort will provide another method and clues for the continuation of building interorganizational collaborative capacity within the Florida CDM Enterprise,

so that the Florida CDM Enterprise storyline continues to expand with successful smart practices that can be leveraged by Florida and other leaders in the Homeland Security Enterprise. Figure 7 provides a Collaboration Maturity Model that suggests that a key to success for Florida will be to sustain collaborative efforts in a time of resource constraints.

The Collaboration Maturity Model (developed by the Cluster Facilitators Forum (CFF), October 05, N Ireland)

Network Stage	Characteristics	What is Being Shared
Level 5	Permanent network staffing.	Network management.
	Network legal & IP agreements.	Allocation of members benefits.
Sustaining	External / internal revenue generation.	Network funding.
Level 4	Established network identity.	Business development and marketing .
	Collaborative projects in place.	Project management.
Collaborating	Additional member recruitment.	Identifying shortfalls.
Level 3	Clear goals and objectives established.	Project planning.
	Agreed network processes and working practices.	Network development processes.
Mobilising	Exploring delivery mechanisms & partners.	Addressing resource issues.
Level 2	Exploring collaborative opportunities.	External Information (e.g. Market Opportunities).
	Effective communication mechanisms in place.	Internal Information (e.g. Company Capabilities).
Co-ordinating	Leadership and support structure in place.	
Level 1	Regular communication opportunities.	External Information (e.g. Sectoral Issues).
	Tacit exchange of information.	
Networking	Relationships and trust developing	
Level 0	Operating in silos.	
	Ad hoc exchanges.	
Agglomeration	Close proximity with potential shared interests.	

Figure 7. Collaboration Maturity Model

There are likely no panaceas or magic lamps to solve all homeland security friction issues or rid the homeland security environment of all fog. People bring their own human frailties with them and no threat or amount of perceived danger solves that paradigm. To return to Clausewitz one last time, he advocated in *On War* to keep pushing ahead with all one's might to offset the friction of war that invariably results from human frailty. Homeland security must do the same. The building of collaborative capacity within homeland security seeks to enhance the enterprise by building alliances that share

values and unity of effort towards a collective security environment. The tsunami that struck the Japanese islands on March 12, 2011 serves as a recent and troubling reminder of the severe weather dangers for coastal states such as Florida, and the urgent need for sharing knowledge between state assets in order to strengthen the overall homeland security enterprise. This project seeks to enable and facilitate the collection and research of tacit comprehensive disaster management and homeland security knowledge in Florida across the past two decades. The rest of the story rests with leaders, change agents and participants within Florida's Comprehensive Disaster Management Enterprise. Florida has a history of rising to each new challenge and it is surmised that each new story will contain both high and low points with the turning of each new page, but the end of each new chapter will have happy endings for the residents of Florida as a result of the ingenuity, resourcefulness and creativity of all the characters in the story.

B. FUTURE RESEARCH

Future research efforts may build on this effort by conducting further study of collaborative capability building through the use of survey tools and interviews of organizational officials. This research seeks to establish a checklist for collaboration in operations and training exercises as well as providing additional tools to assess collaborative capability posture within organizations. Just as traffic signs based on past traffic experiences serve to more effectively guide converging traffic patterns, smart practices in the building of collaborative capacity serve as signposts to point the way toward more effective interagency collaboration as agencies merge together.

Homeland security practitioners and national leaders may benefit from further research in building collaborative capacity. Collaborative capacity building seeks to strengthen the human condition through the forces of building trust, knowledge, respect, leadership and other attributes that demonstrate mankind's ability to work together to better its environment and provide collective security.

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX AUTHORS BIOGRAPHY AND PERSONAL OBSERVATIONS

I have been an active participant in each of the 3 Florida events analyzed as well as many others with over a dozen activations for state emergencies including hurricanes, wildfires, floods and Y2K monitoring. My experience includes:

- serving as an Operations Officer at both the Governor's State Emergency Operations Center and the Adjutant General's Joint Emergency Operations Center
- serving as Officer In Charge for Rapid Impact Assessment Teams (RIATs) to assess and report infrastructure damage after catastrophic storms
- instructing Emergency Operations Center management
- coordinating and instructing search and rescue training
- instructing crisis decision making procedures
- conducting maritime search and rescue/law enforcement patrols along storm damaged shorelines and rivers
- designing and evaluating exercises for search and rescue and damage assessments
- coordinating EMAC resources
- coordinating resources for Weapons of Mass Destruction (WMD) response and training
- mobilization for Operation Desert Storm, Operation Enduring Freedom and Operation Iraqi Freedom

More importantly than what I have done is whom I've collaborated with as I have tremendously benefited from working with amazing personnel and agencies. Everyone that we collaborate with shapes who we become. I have conducted past research into the Pygmalion Effect phenomenon in which the greater the expectation placed upon people the better they perform. I have benefited tremendously from mentors who have believed in my ability to succeed.

My experiences over the past 29 years of service in support of federal and state emergencies leads me to conclude that 2 of our most important enablers for success are resilience and collaboration capacities and that the 2 are mutually supportive. We are able to face adversity better as a group working together and collaboration increases our

collective resilience. We will face setbacks and challenges along the way—such is the human condition—but can continuously improve if we continue to collaborate. Our national identity speaks to collaboration with the phrase “united we stand and divided we fall.”

LIST OF REFERENCES

- Bardach, Eugene. *Getting Agencies to Work Together: The Practice and Theory of Managerial Craftsmanship*. Google Books. 1998.
<http://books.google.com/books?hl=en&lr=&id=CtGgXt3Ci2sC&oi=fnd&pg=PA1&dq=eugene+bardach+AND+collaborative+capacity&ots=hYPhOn7XUY&sig=GPRF8Oa9O7xZS7QdvCZE3FmH5Vk#v=onepage&q=eugene%20bardach%20AND%20collaborative%20capacity&f=false>. Accessed July 2, 2011.
- Bardach, Eugene. “Smart (Best) Practices Research: Understanding and Making Use of What Look Like Good Ideas from Somewhere Else.” In *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, 3rd ed. Washington, DC: CQ Press, 2009.
- Boal, Kimberly B. and Schultz, Patrick L. “Storytelling, Time, and Evolution: The Role of Strategic Leadership in Complex Adaptive Systems” *Leadership Quarterly* 18, no. 4 (2007): 411–418.
<http://kimboal.ba.ttu.edu/Selected%20writings/story%20telling.pdf>. Accessed January 20, 2011.
- Broughton, Robert. Theory of Constraints. *Business Excellence*. 2011.
<http://www.bexcellence.org/Theory-of-Constraints.html>. Accessed November 9, 2011.
- Burnes, Bernard and Lewin, Kurt. “Harwood Studies: The Foundations of OD.” *The Journal of Applied Behavioral Science* 43, no. 2, June 2007.
<http://search.proquest.com.libproxy.nps.edu/docview/236352406/fulltextPDF/130A992A7191BF2BD1/18?accountid=12702>. Accessed July 19, 2011.
- Burnett, Douglas. *Florida National Guard Summer Storms 2004 After Action Report*. St. Augustine, FL: Florida Department of Military Affairs, 2005.
- Caruso, Heather, Rogers, Todd and Bazerman, Max H. “Boundaries Need Not be Barriers: Leading Collaboration Among Groups in Decentralized Operations.” Harvard Business School. 2008. <http://www.hbs.edu/research/pdf/07-090.pdf>. Accessed November 14, 2011.
- CDC Foundation. *Meta-Leader Summit for Preparedness*. 2010.
<http://www.metaleaderships summit.org/>. Accessed October 29, 2010.

- Chermack, Thomas J. Mental Models in Decision Making and Implications for Human Resource Development. In *Advances in Human Resource Development 2003* 5:408. 2003.
<http://adh.sagepub.com.libproxy.nps.edu/content/5/4/408.full.pdf+html>. Accessed October 28, 2010.
- Comfort, Louise K., Boin, Arjen and Demchak, Chris C. *Designing Resilience: Preparing for Extreme Events*. Pittsburg, PA: University of Pittsburg Press, 2010.
http://books.google.com/books?id=ZSQHUH_iYuYC&pg=PA120&lpg=PA120&dq=philip+d+lewis+florida+AND+the+lewis+report&source=bl&ots=yfvOkSKNl&sig=a4Y1Wz6PPLFQ5ArgVYl4TsoiM9I&hl=en&ei=BLaJTpnzM-fw0gHL_NCLDw&sa=X&oi=book_result&ct=result&resnum=2&ved=0CCMQ6AEwAQ#v=onepage&q=philip%20d%20lewis%20florida%20AND%20the%20lewis%20report&f=false. Accessed October 3, 2011.
- Cooper, Christopher & Block, Robert. *Disaster: Hurricane Katrina and the Failure of Homeland Security*. New York: Times Books: Henry Holt and Company, LLC., 2006.
- Denning, Stephen. *The Leaders Guide to Storytelling*. San Francisco, CA: Jossey-Bass, 2011.
- Dettmer, H. William. *Goldratt's Theory of Constraints: A Systems Approach to Continuous Improvement*. 1997.
<http://search.proquest.com.libproxy.nps.edu/docview/214520960?accountid=12702>. Accessed July 2, 2011.
- Donoghue, Amy K. & Tuohy, Robert V. "Lessons We Don't Learn: A Study if the Lessons of Disasters, Why We Repeat Them, and How We Can Learn Them." *Homeland Security Affairs* II, no. 2 (2006).
- Florida Domestic Security Oversight Counsel. *Florida Domestic Security Strategic Plan 2009–2011*. August 5, 2008. <http://www.fdle.state.fl.us/Content/getdoc/0aead9bc-20f4-4c4e-86fd-6bd15df62b38/FloridaDomesticSecurityStrategicPlan2009-2011.aspx>. Accessed September 21, 2011.
- Florida Legislature. *The 2010 Florida Statutes (including Special Section A)*. Title XVII Military Affairs and Related Matters. Chapter 252, Emergency Management. 2011.
http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0252/Sections/0252.35.html. Accessed April 30, 2011.

- Foster-Fishman, Pennie G., Berkowitz, Shelby A., Lounsbury, David W., Jacobson, Stephanie, Allen, Nichole A. "Building Collaborative Capacity in Community Coalitions: A Review and Integrative Framework." *American Journal of Community Psychology* 29, no. 2 (2001): 241–261.
http://www.qub.ac.uk/ep/research/cu2/data/bib_foster-fishman-et-al_building-collaborative.pdf. Accessed November 5, 2011.
- Gerencser, Mark, Van Lee, Reginald, Napolitano, Fernando and Kelly, Christopher. *Megacommunities: How Leaders of Government, Business and Non-Profits Can Tackle Today's Global Challenges Together*. New York: Booz Allen Hamilton, Inc. Palgrave MacMillan Publishers, 2008.
- Getha-Taylor, Heather. "Learning Indicators and Collaborative Capacity: Applying Action Learning Principles to the U.S. Department of Homeland Security." *Public Administration Quarterly* 32, no 2 (2008): 125–146.
<http://search.proquest.com.libproxy.nps.edu/business/docview/226969112/13051E1667C4668ED1E/2?accountid=12702>. Accessed January 22, 2011.
- Graham, J. J. *On War*. 1873. <http://www.clausewitz.com/readings/OnWar1873/TOC.htm>. Accessed October 24, 2010.
- Himberger, Douglas, Sulek, David and Krill, Jr., Stephen J. *When There is No Calvary*. Disaster Resource Guide. Santa Ana, CA, 2007. http://www.disaster-resource.com/articles/08p_056.shtml. Accessed May 30, 2011.
- Hocevar, Susan. *Interorganizational Collaborative Capacity: A Conceptual Model and Measurement Tool*. February 24, 2010.
<https://www.chds.us/?file&mode=dl&f=resources/uapi/summit10/Track2/Hocevar-Interorganizational-Collaborative-Capacity-02-031510-01.pdf>. Accessed August 21, 2011.
- Hocevar, Susan, Jansen, Eric and Thomas, Gail Fann. *Building Collaborative Capacity for Homeland Security*. November 1, 2004. <http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA431358>. Accessed August 15, 2011.
- Hocevar, Susan, Thomas, Gail Fann and Jansen, Eric. *Building Collaborative Capacity: An Innovative Strategy for Homeland Security Preparedness*. 2006.
<https://www.chds.us/?file&mode=dl&f=resources/uapi/summit10/Track2/Hocevar-Interorganizational-Collaborative-Capacity-02-031510-01.pdf>. Accessed August 21, 2011.

- Jansen, Eric, Hovevar, Susan Page, Rendon, Rene G, & Thomas, Gail Fann. *Interorganizational Collaborative Capacity: Development of a Database to Refine Instrumentation and Explore Patterns*. November 24, 2008. <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA494264&Location=U2&doc=GetTRDoc.pdf>. Accessed August 22, 2011.
- Lee, Pauline, Gillespie, Nichole, Mann, Leon, and Wearing, Alexandar. *Leadership and Trust: Their Effect on Knowledge Sharing and Team Performance*. June 28, 2010. <http://mlq.sagepub.com/content/41/4/473.abstract>. Accessed December 2, 2010.
- Lewis, Phillip D. *The Governor's Disaster Planning and Response Review Committee's Final Report on Hurricane Andrew*. January 15, 1993. <http://www.floridadisaster.org/documents/Lewis%20Report%201992.pdf>. Accessed August 12, 2011.
- Lewis, Philip D. *Through the Flames...An Assessment of Florida's Wildfires of 1998*. Tallahassee, FL: Report of the Governor's Wildfire Response and Mitigation Review Committee, 1998.
- Marcus, Leonard J., Isaac Ashkenazi, Barry Dorn, and Joseph Henderson. "The 5 Dimensions of Meta-Leadership." In *National Preparedness Leadership Initiative*. Harvard School of Public Health and the Kennedy School of Government at Harvard University. November 2007. <http://meta-leadershipsummit.org/Files/meta/2011/FiveDimensionsofMeta-LeadershipComprehensiveBrief.pdf>. Accessed October 10, 2010.
- Merriam-Webster Dictionary. (2010). *Friction*. <http://www.merriam-webster.com/dictionary/friction>. Accessed November 3, 2010.
- Milward, H. Brinton and Provan, Keith G. *A Managers Guide to Choosing and Using Collaborative Networks*. Networks and Partnership Series. IBM Center for the Business of Government. 2006. www.businessofgovernment.org. Accessed October 4, 2011.
- Mittler, Elliot. *A Case Study of Florida's Emergency Management since Hurricane Andrew* (Grant CMS-9319422). Arlington, VA: National Science Foundation, 1997.
- MSN Encarta Dictionary. (2010). *Organization*. http://encarta.msn.com/dictionary_1861684837_1861684837/prevpage.html. Accessed November 3, 2010.

- MSN Encarta Dictionary. (2010). *Friction*.
<http://encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?lextype=3&search=friction>. Accessed November 3, 2010.
- Nahmad, Abdo. *The Collaborative Capacity of the NYPD, FDNY and EMS in New York City: A Focus on the First Line Officer*. March 2010.
<https://www.hSDL.org/?view&did=27182>. Accessed August 15, 2011.
- Organization Development. In Encyclopedia Britannica, Encyclopedia Britannica Online. 2010. <http://www.britannica.com/EBchecked/topic/432078/organization-development>. Accessed October 26, 2011.
- Schein, Edgar H. *Cognitive Redefinition. Kurt Lewin's Change Theory in the Field and In the Classroom: Notes Toward a Model of Managed Learning*. n.d.
<http://www.solonline.org/res/wp/10006.html>. Accessed November 11, 2011.
- Schoomaker, Peter J. *Field Manual 6-22 Army Leadership: Competent, Confident, and Agile*. Carlisle, PA: United States Army, 2006.
- Segal, Jeanne & Smith, Melinda. Conflict Resolution Skills. Helpguide.org. November 2010. http://www.helpguide.org/mental/eq8_conflict_resolution.htm. Accessed August 15, 2011.
- Senge, P. M. *The Fifth Discipline: The Art and Practice of the Learning Organization*. Infed. <http://www.infed.org/thinkers/senge.htm> (accessed September 26, 2010).
- Smallen, David and Leach, Karen. "Making a Nicer Transition to the Millennium: Five Keys to Successful Collaboration." *Educom Review* 34, no. 4 (August 1999).
<http://net.educause.edu/ir/library/html/erm/erm99/erm9945.html>. Accessed November 14, 2011.
- Stephey, M. J. "FEMA Chief W. Craig Fugate." *Time*. March 6, 2009.
<http://www.time.com/time/nation/article/0,8599,1883485,00.html>. Accessed April 19, 2011.
- United States Government Accountability Office. *Emergency Management Assistance Compact: Enhancing EMAC's Collaborative and Administrative Capacity Should Improve National Disaster Response* (GAO-07-854). 2007.
<http://biotech.law.lsu.edu/blaw/GAO/d07854.pdf>. Accessed October 4, 2011.
- United States Air Force. *Clausewitz Condensed: Friction of War*. 2010.
<http://www.au.af.mil/au/awc/awcgate/clauswtz/clwt000b.htm>. Accessed October 25, 2010.

United States Army. *Army Leadership: Competent, Confident and Agile*. October 12, 2006. <http://mldc.whs.mil/download/documents/Readings/fm6-22.pdf>. Accessed January 22, 2011.

United States Department of Homeland Security. *Homeland Security Presidential Policy Directive/ PPD 8: National Preparedness*. Washington, DC: United States Department of Homeland Security, 2003.
http://www.dhs.gov/xabout/laws/gc_1215444247124.shtm. Accessed June 26, 2011.

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Ft. Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California

I